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Lake Taupo long-term monitoring programme 2014-2015

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NIWA
Taihoro Nukurangi

Lake Taupo Long-term Monitoring Programme

2014 - 2015

Prepared for Waikato Regional Council

May 2016

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Executive summary

With the expectation that the trophic status of Lake Taupo will slowly change to reflect changes in land use within the lake's catchments, a long term programme to monitor the lake's water quality was commissioned by Waikato Regional Council. This programme commenced in October 1994 and is conducted by NIWA with field assistance from the Department of Internal Affairs, Taupo Harbourmaster's Office. This report presents the results from the 2014-2015 monitoring period.

The monitoring programme was designed to detect change through assessment of the lake's water quality.

The long-term monitoring programme uses the historical mid-lake site, Site A. Previous work determined that the near-shore water quality was very similar to the mid-lake water quality.

During this monitoring year, the maximum chlorophyll a concentration measured on 9 September 2014 after the lake had mixed (3.8 mg m^{-3}) was the highest measured since 1994. Algal biomass in the upper water column was low in November 2014- January 2015, consistent with previous years. There was no significant trend in chlorophyll *a* since 2000. There was no significant trend in the day of the year at which chlorophyll *a* was highest, and the average day for this was 13 August.

Diatoms dominated the algal biomass much of the year at 0-10 m depth, and even more so at 50 m depth. The 2014 winter-spring bloom was dominated by the diatoms *Aulacoseira granulata* and *Fragilaria crotonensis*. *Fragilaria crotonensis* remained dominant until February when dinoflagellates took over, which were replaced by species of green algae in May and June 2015. Cyanobacteria were most abundant in April-June 2015 but never dominated the algal biomass in the surface layer. *Dolichospermum cf lemmermannii* was the most common species of cyanobacteria.

The mean summer temperature (January-March 2015) was 20.0 °C. The surface temperature was highest in January 2015 (20.9 °C) and lowest in October 2014 (11.2 °C). There has been no significant trend in annual mean water surface temperatures, or in annual mean temperatures at any depth. However, there has been a significant decrease in the temperature difference between the surface layer and bottom water during winter, the opposite of the expected effect in a deep lake from a warming climate. There is evidence for increased mixing during winter and for an increase in the duration of the winter mixing period. The mixing period in 2014 lasted nearly three months. Although trends in temperature gradients were mainly significant during winter, it was striking that of nine examined temperature gradients (using combinations of different depths), in three different periods of the year (n = 27), all had decreased, without exception. Moreover, while temperatures at different depths did not change significantly, temperatures trends at all depths above 50 m were negative and below 50 m depth positive. The difference in trend directions between the shallower and deeper sections of the water column was consistent with the observed decrease in the temperature gradient, resulting in an enhanced potential for vertical mixing, and enhancing access to dissolved nutrients for algae in the surface layer.

This topic merits further investigation in view of its great importance for the rate of return of nutrients, accumulated in the hypolimnion by decomposition of organic material produced in the epilimnion, back to the epilimnion where the nutrients are used by algae to grow. There was a significant correlation between annual mean chlorophyll *a* and the mean temperature difference in July to October between 20 and 130 m depth, confirming that winters with low temperature gradients enhance algal growth in Lake Taupo.

One possible explanation for a decrease in mean winter temperature gradients and an increased potential for mixing might be increasing geothermal heat inputs. Because the heat flux from this source enters the lake from below, instead of through the lake surface, it would reduce the temperature differences from top to bottom, whereas the effect of a warming climate is the opposite. An alternative explanation could be a long-term increasing trend in wind speeds. Annual mean wind speeds have increased significantly at Taupo Automatic Weather Station since 1995, by 10%.

The monthly mean temperature difference between the lake surface and the air (Ts-Ta), the latter measured at a weather station in Taupo, was on average 3.10 °C since 1995, and 2.92 °C in this monitoring year. There has been no significant trend in this temperature difference. Monthly mean Ts-Ta was highest during winter (about 5°C). In 2014-2015 it was negative only in December 2014 (-0.6 °C). High winter time Ts-Ta results in cooling of the lake surface by sensible and evaporative heat loss.

In April 2015 the lowest value of dissolved oxygen at 130 m depth was 7.5 mg m^{-3}, and the lowest value at 150 m depth was 7.1 mg m^{-3}. The average annual minimum concentrations since 1995 were 7.2 mg m^{-3} at 130 m depth and 7.0 mg m^{-3} at 150 m depth. Therefore, the minimum dissolved oxygen concentrations in 2014-2015 were above the average. There was a slight but significant increase in annual minimum dissolved oxygen concentrations in the hypolimnion since 1999, in spite of a large apparent increase in net VHOD since 1999.

There was no trend in chlorophyll *a* that could explain the more than tenfold increase in net VHOD from 1999 until 2013 by a change in the amount of organic matter produced by phytoplankton in the epilimnion and decomposing in the hypolimnion. The tenfold increase in net VHOD may be explained by focussing of the decomposition of organic matter in the hypolimnion within a shorter time frame, which could result in a greater VHOD while not necessarily affecting the oxygen concentrations in the hypolimnion if a similar total amount of oxygen was consumed. There was indeed no corresponding negative trend in minimum oxygen concentrations at 130 m depth since 1999 to reflect an increase in hypolimnetic oxygen depletion. Other explanations, such as changes in allochthonous organic carbon, are unlikely in view of the very large change in net VHOD. Most consumption of oxygen in this lake, which is large and has a long residence time (11 years), must be based on decomposition of autochthonous organic carbon. However, the increase in VHOD since 1999 may have come to an end in 2012-2013. The net VHOD rate in 2014-2015 was 11.8 ± 2.5 mg m^{-3} d^{-1}, about half of that in the previous year. Net VHOD in 2014-2015 was the lowest since the 2006-2007 monitoring year.

Lowest water clarity values, in August (11.0 m) and September 2014 (11.2 m), corresponded with high chlorophyll *a* concentrations. Water clarity was highest in February-March (18.0 m). There was a negative correlation (R^2 = 0.30) between Secchi depth and chlorophyll *a* in 2014-2015. There was also a reasonable inverse correlation between annual means of Secchi depth and chlorophyll *a* since 2000 (R^2 = 0.46). There was no significant trend in water clarity since 2000. There was no trend in the day of the year at which Secchi depth was lowest, and the average day was 5 September. There were no significant trends in the annual minimum or maximum Secchi depths, or in the difference between the annual minimum and maximum.

During the winter overturn, the nutrients (nitrate and dissolved phosphorus), that had accumulated in the hypolimnion during summer, were mixed through the entire water column, and their concentrations dropped in the hypolimnion. In contrast, ammoniacal nitrogen (NH_4) concentrations in the bottom water increased during the winter overturn because of mixing with shallower water

where NH_4 concentrations are higher during summer than in the hypolimnion. Whereas nitrate gets mixed upward during winter, NH_4 gets mixed down in the water column. During summer NH_4 concentrations in bottom water remain low because of nitrification at the sediment-water interface.

A prolonged period of low nitrate and dissolved phosphorus in bottom water during 2014, compared with previous years, and the highest maximum chlorophyll *a* in the surface layer measured since 1995 in the winter of 2014 coincided with, and may have been caused by extreme low density gradients in the water column. The lowest average temperature difference between 20 m and 130 m depths during July to October occurred in the winter of 2014. In addition, the percentage of profiles where the water temperature difference between 20 m and 130 m depths was <0.3 °C was highest in the winter of 2014, since 1995.

In 2014-2015 the hypolimnetic dissolved nutrient concentrations indicated that the mixing period in the winter of 2014 was unusually long, supporting the evidence from temperature gradients. The mixing period in the winter of 2015 was similarly long. In both years nutrient concentrations in the hypolimnion increased more slowly after the winter minimum in bottom concentrations than in previous years, suggesting a long lasting mixing season. In spite of the long mixing season in 2014, delaying onset of nutrient accumulation in the hypolimnion during the subsequent summer, the concentrations of nitrate and dissolved phosphorus reached maxima not seen before for dissolved reactive phosphorus and not seen since 2003 for nitrate.

The long mixing season in 2014 may have resulted in the high algal biomass measured in September 2014 by delaying the accumulation of dissolved nutrients in the bottom water and keeping them available for algal growth in the surface layer, which in turn may explain the subsequent high peak in hypolimnetic nitrate and dissolved phosphorus.

An increase in the winter mixing period since 1995 may also have resulted in the observed increase in annual minimum dissolved oxygen concentrations. With an earlier onset of the winter mixing the decline in dissolved oxygen by consumption during the stratified season stops earlier, resulting in less extreme minima in dissolved oxygen concentrations.

1 Introduction

A long term monitoring programme of Lake Taupo's water quality was commissioned by Waikato Regional Council in October 1994 in the expectation that the trophic state of the lake would change to reflect changes in land use within the lake's catchment. This programme is conducted by NIWA with field assistance from the Department of Internal Affairs, Taupo Harbourmaster's Office. Various additions and improvements to the monitoring methodology have occurred with advances in available technology but the core monitoring parameters remain unchanged (Appendix 1). This report presents data from the routine mid-lake monitoring station from July 2014 to June 2015. Additional information collected between July 2015 and the time of writing this report has also been included in the data sets in the appendices.

In two earlier reports (Gibbs 2005, 2006), data were included from two additional sites representing those historically sampled in the 1974-76 assessments of lake water quality (White et al. 1980) (Figure 1) to evaluate spatial variability of water quality across the lake. Results from these two additional sites showed that, in general, there were minimal differences between the sites in seasonal variation and that data collected from Site A (mid lake) could be used as representative of the main body of the lake. More recently, a comparison of upper water column nutrient and chlorophyll *a* concentrations and algal abundance was made between Site A and near-shore sites in Whangamata Bay (Kinloch) and Whakaipo Bay (Figure 1), over a 2-year period from February 2007 up to June 2009 (Gibbs 2010a). That study determined that, although there were small differences, the near-shore water quality was very similar to the mid-lake water quality. This report presents data from Site A only.

The monitoring programme examines algal biomass, upper water layer water quality, whole water column water quality, and dissolved nutrient concentrations in bottom water. Bottom water oxygen depletion is estimated as the volumetric hypolimnetic oxygen depletion (VHOD) rate, which is sensitive to changes in trophic state of lakes that thermally stratify for part of the year (Burns 1995). VHOD is considered a good indicator to detect changes in the water quality of Lake Taupo. Estimates of VHOD are made from dissolved oxygen and temperature profiles measured at 2-3 week intervals during the stratified period. However, the VHOD rate can only indicate that changes that may have occurred in water quality but not identify their underlying causes. In order to enable understanding of contributing processes, the upper water column (0-10 m depth) is sampled for nutrients, chlorophyll *a*, phytoplankton species composition and water clarity at 2-3 weekly intervals, and full depth profiles are carried out twice during the stratified period. The first profile is taken in spring, when thermal stratification has become established and is stable, the second profile is taken in autumn the following year before thermal stratification begins to break down, as the thermocline deepens.

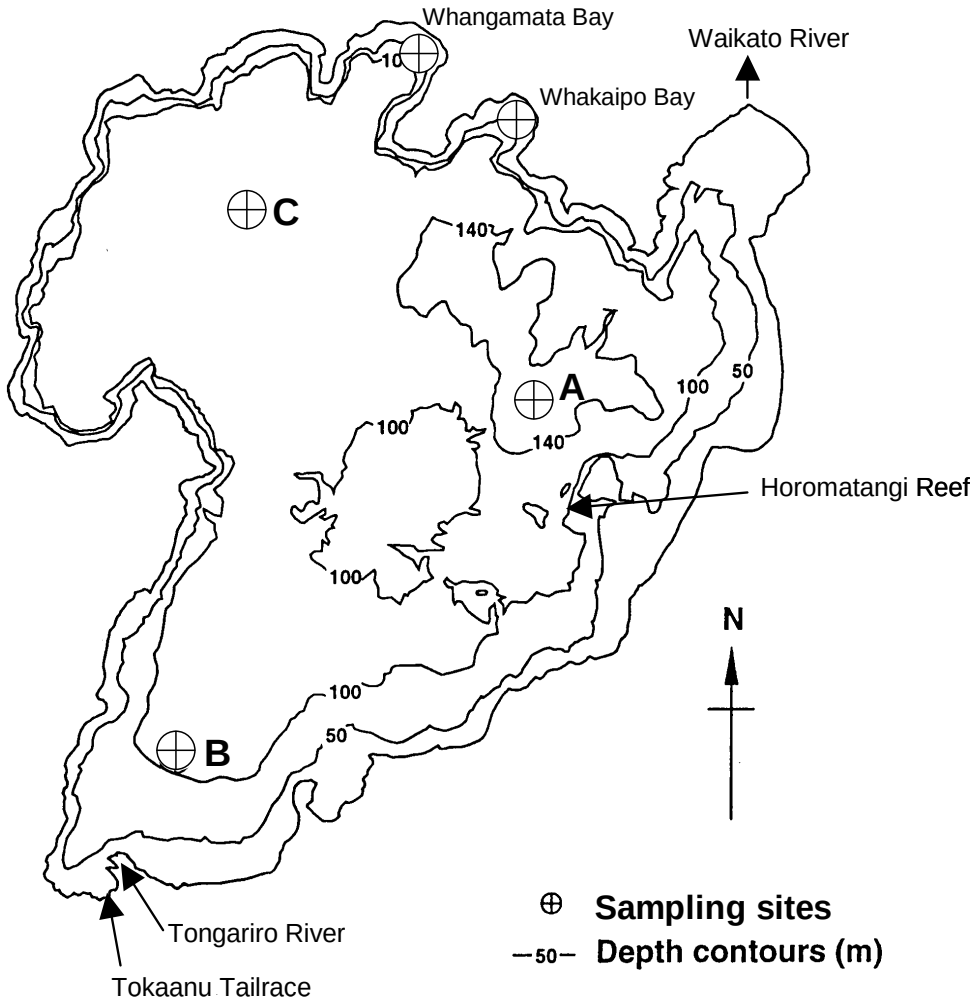

Figure 1: Site map of Lake Taupo. Showing location of the routine monitoring site at mid lake (A), and the two additional sites at Kuratau Basin (B) and the Western Bays (C) sampled during the three-year period 2002-04. The near-shore comparison sites at Whangamata Bay and Whakaipo Bay sampled during a two-year period 2007-09 are also shown.

2 Methods

Detailed method descriptions are given in Appendix 1. The parameters routinely measured or derived by calculation from component parameters at 2-3 weekly intervals are:

- depth-related temperature and dissolved oxygen (DO), using a RBR XR420f CTD profiler until January 2008, thereafter using a RBR XR620f CTD profiler. Additional parameters of conductivity and chlorophyll fluorescence, and since January 2008, PAR, recorded by the profiler sensors are available at NIWA and will only be reported as appropriate
- water clarity by Secchi disc depth (20 cm black and white quartered)
- chlorophyll *a*, nitrate+nitrite-nitrogen (NO_3-N), ammoniacal-N (NH_4-N), dissolved organic N (DON), particulate-N (PN), dissolved reactive phosphorus (DRP), dissolved organic phosphorus (DOP), particulate phosphorus (PP), and algal species composition and biovolume in integrated-tube water samples from the top 10 m. Concentrations of total nitrogen (TN) and total phosphorus (TP) are estimated by summing the respective measured fractions. Zooplankton net hauls from 100 m (63 µm mesh) are preserved in 4% formalin and stored pending analysis.

Since 2000, water samples have also been collected using a van Dorn water bottle from just above the lake bed (150 m) for analysis of NO_3-N, NH_4-N, and DRP to assess nutrient accumulation rates in the hypolimnion and to assess the extent of winter mixing.

Since the 2010/2011 monitoring period, water samples have also been collected by van Dorn water sampler from a depth of 50 m for analysis of chlorophyll *a* to assess the magnitude of the phytoplankton in the deep chlorophyll maximum around the thermocline.

Whole water column sampling is carried out twice a year in spring and autumn and the parameters measured (or derived by calculation from component parameters) at 10 m depth intervals from the surface down to 150 m depth are:

- Conductivity, pH, temperature, DO, DRP, DOP, PP, TP, NO_3-N, NH_4-N, DON, PN, TN, urea nitrogen (Urea-N), total suspended solids (SS), volatile suspended solids (VSS), particulate carbon (PC), and dissolved organic carbon (DOC).

Additional parameters measured twice yearly, but not as complete profiles are:

- Algal species composition and biovolume on water samples from 1, 10, 50, 100 and 140 m.

Details of data handling and the treatment of values that are near analytical detection limits are described in Appendix 1.

2.1 Report contents

This report presents the results from the 2014/15 period, from winter 2014 to winter 2015, and refers to data in previous annual monitoring reports from 1995 to 2014 for inter-annual comparisons, and archived historical data since 1974 held by NIWA. The methods used are as per the 1994/95 report (Gibbs 1995) and are included in Appendix 1. The calculation of the net VHOD rate, as applied to Lake Taupo data, was described in the 1996/97 report and a copy of the methods is presented in Appendix 2. Temperature and dissolved oxygen data from the past twenty one years are given in Appendix 3 and nutrient data are in Appendix 4. Graphical presentations of time-series of

temperature, dissolved oxygen, and Secchi disc depth data collected since the start of this monitoring programme are updated and presented in figures in the text. Phytoplankton species composition and biovolume data are included in Appendix 5, which contains phytoplankton data since 2006, and are discussed in the text. Historical (before 1994) nitrate and dissolved reactive phosphorus data from spring and autumn full lake profiles are presented in Appendix 6 for reference.

2.2 Statistical evaluation

Simple statistical evaluation of data has been made using Microsoft Excel® and regression results have been reported to ± 95% confidence limits.

3 Results and discussion

3.1 Temperature and mixing

The time-series of temperature at 0, and 10 m depth (epilimnion) and 130 m depth (hypolimnion) collected in the monitoring programme since 1994 are presented in Figure 2. Annual maximum temperatures at 0 m depth were between 18 °C and 23 °C (Figure 2). In most winters the water column becomes isothermal and mixing occurs, but mixing was incomplete in the winter of 1998.

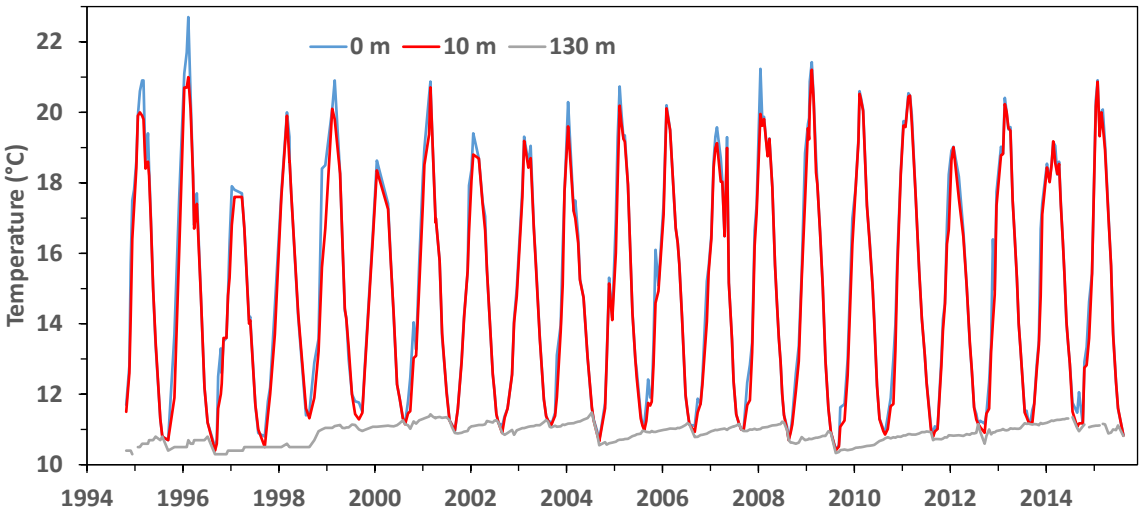

Figure 2: Time-series temperature data. Water temperatures at 0, 10 and 130 m. X-axis tick marks indicate 1 January of each year.

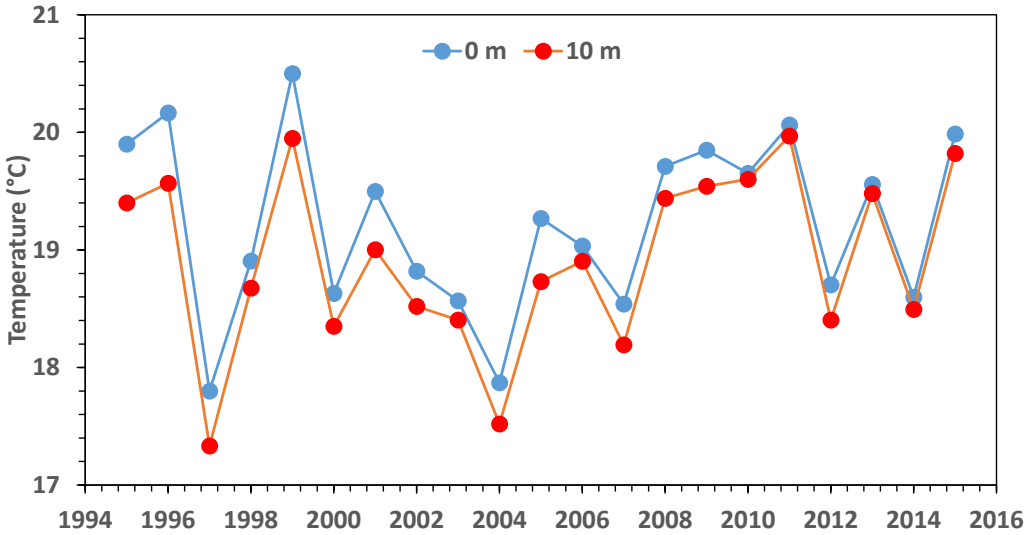

Figure 3: Mean summer temperatures (January-March) temperatures at 0 and 10 m depth.

Summers were cooler in the early 2000s (Figure 3). In the monitoring year 2014-2015 the surface temperature was highest in January (20.9 °C; Figure 21) and lowest in October (11.2 °C). There has been no significant change in annual mean water surface temperatures (Figure 22).

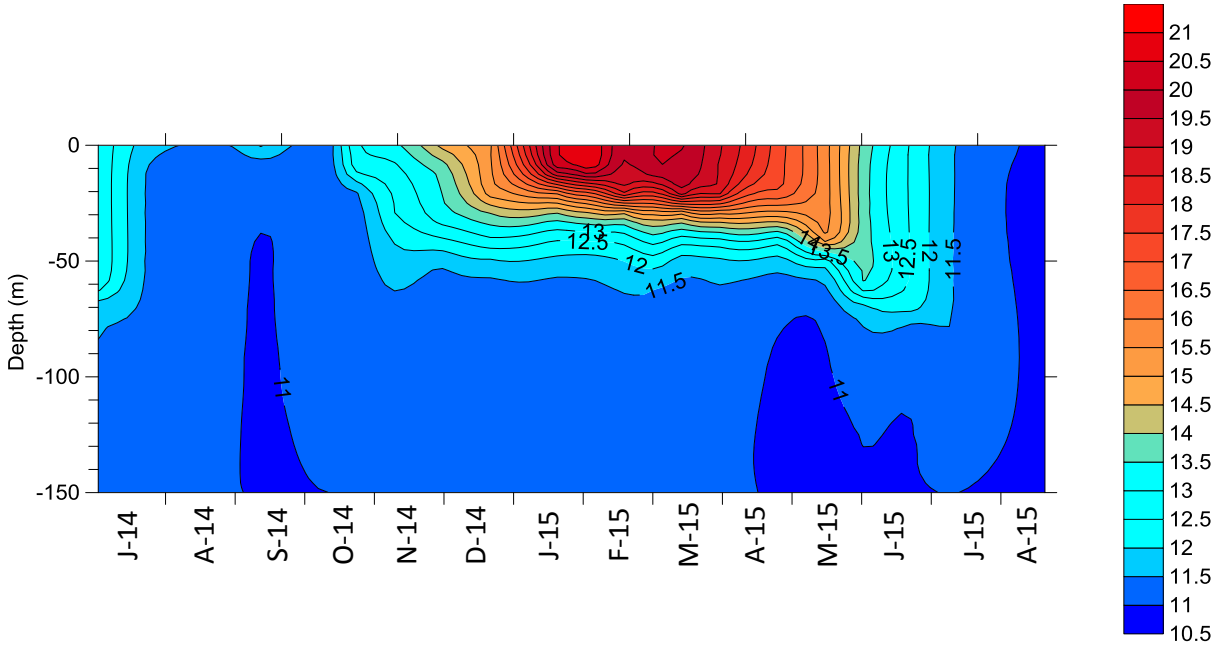

Figure 4: Contour plot of water temperatures (°C) from 1 July 2014 to 13 August 2015.

A contourplot (Figure 4) shows the onset of stratification in October 2014, the deepening of the thermocline throughout summer, and the overturn in July 2015. The mixing period in 2014 lasted about two months and three weeks. The temperature difference between 20 m and 130 m depth was between 0.03 and 0.17 °C from July to October 2014.

Nevertheless, in the middle of the 2014 mixing period, in September, the lake was not fully isothermal. The surface water was warmer than the month before and after, while the hypolimnion had continued to cool, in fact the full water column below 20 m depth cooled. The latter is typical at this time. The surface warming was likely the result of a few warm days. Even just one warm day can result in a pronounced diurnal thermocline. But there was no seasonal thermocline. In September 2014 it was mainly the surface value that was markedly higher than in August and October. The profile in September 2014 was probably measured on a warm sunny windless day and perhaps the sampling was carried out a bit later in the day than usual (and therefore the surface had more time to warm up). While by early October the surface was colder than in September, the full water column below the top few metres had started to warm already. But the lake had warmed rather equally at all depths below 20 m depth, suggesting that the lake was still well mixed at the first sampling date in October. The temperature profiles are affected by the time and day of sampling, which is not an issue with automatic monitoring buoy measurements (Verburg 2016). The automatic monitoring buoy in Lake Taupo provides full profiles, every minute, day and night.

Cooling of bottom water, such as occurred in September 2014, and in April 2015 and August 2015 as well (Figure 4), arises from cooled surface water (usually cooled by cool night air or heat loss results from high wind speeds) which sinks out to the bottom because cold water is heavier. That can either occur in the open lake during the night, followed by reinstatement of a warmer surface layer by diurnal warming, or by marginal down flows. Marginal down flows occur when cooling takes place in

the shallower margins of a lake, where cooling per unit volume is faster than in deeper water. This cooled water, by gravitational force, will find its way to the deeper parts of the lake. Down flows of cooled surface water in the open lake can be so rapid that incomplete mixing occurs with warmer water in the water column during its descend. The cool water will come to rest on the lake bottom with slightly warmer water layers higher in the water column. In short, a lake can mix vertically while the temperature profile is not completely isothermal. In deep lakes typically bottom water cooling and lake mixing goes hand in hand. The fact that the temperature differences between 20 m and 130 m depth in all profiles from July to October 2014 were <0.2 °C is sufficient evidence that the lake was mixing for nearly three months in the winter of 2014.

It must be noted that "mixing" and "mixed" are separate concepts. Once the lake is more or less isothermal it takes a while for the lake to be fully mixed and processes, such as surface warming, cold down flows, continued oxygen production and consumption, can quickly set up again small temporary gradients in temperature or oxygen, which do not mean the onset of summer stratification. In fact, in terms of oxygen the lake is never truly mixed (see Figure 11, contour plot of oxygen).

Full mixing started somewhat earlier in 2015 than in 2014, and the surface water became cooler than in the winter of 2014, probably because of lower air temperatures or wind speeds in the winter of 2015.

There appears to be evidence that mixing during winters has increased in Lake Taupo, which is the opposite of what would be expected in a deep lake in a warming climate (Verburg et al. 2003). Temperature differences between 20 m depth and 130 m depth ($T_{20m} – T_{130m}$) <0.3 °C have occurred only in the months of July to October since 1995. $T_{20m} – T_{130m}$) <0.2 °C has occurred as well in each of the months from July to October and in no other months. The average $T_{20m} – T_{130m}$ in July-October (Figure 5) decreased significantly since 1995 ($p < 0.01$ and $R^2 = 0.32$). It must be kept in mind that the number of CTD casts per winter (July-October) were not the same between years (varied from four in 1995 to eight in 2005, average 5.7) and that CTD casts were not equally spaced in time through each winter period, which may have resulted in a bias. However, the number of profiles where $T_{20m} – T_{130m}$ was <0.2 °C or <0.3 °C, as a percentage of the total number of CTD profiles collected during July-October each year, showed clear increasing trends as well (Figure 6). The trends were significant ($p < 0.05$ and $R^2 = 0.28$ for $T_{20m} – T_{130m} < 0.2$ °C, and $p < 0.005$ and $R^2 = 0.37$ for $T_{20m} – T_{130m} < 0.3$ °C).

One possible explanation for a decrease in mean winter temperature gradients and an increased potential for mixing might be increasing geothermal heat inputs. Because the heat flux from this source enters the lake from below, instead of through the lake surface, it would reduce the temperature differences from top to bottom, whereas the effect of a warming climate is the opposite (Verburg and Hecky 2009). There was no significant trend in air temperature at the Taupo Automatic Weather Station (Taupo Aws) since 1995 (data down loaded from the NIWA climate data base) and also the surface water of Lake Taupo did not warm since 1995 (O'Reilly et al. 2015), making Lake Taupo one of the few exceptions among a large number of lakes around the world (O'Reilly et al. 2015). An alternative explanation could be a long-term increasing trend in wind speeds. Annual mean wind speeds have increased significantly at Taupo Automatic Weather Station since 1995 ($p < 0.05$, $R^2 = 0.20$). Also monthly mean wind speeds increased significantly ($p < 0.01$) since 1995, by 10%. However, an increasing trend in average winter wind speeds (July-October or August-September) was not significant. Wind speed data records from other stations around the lake are too short.

This topic merits further investigation in view of its great importance for the rate of return of nutrients, accumulated in the hypolimnion by decomposition of organic material produced in the epilimnion, back to the epilimnion where the nutrients are used by algae to grow.

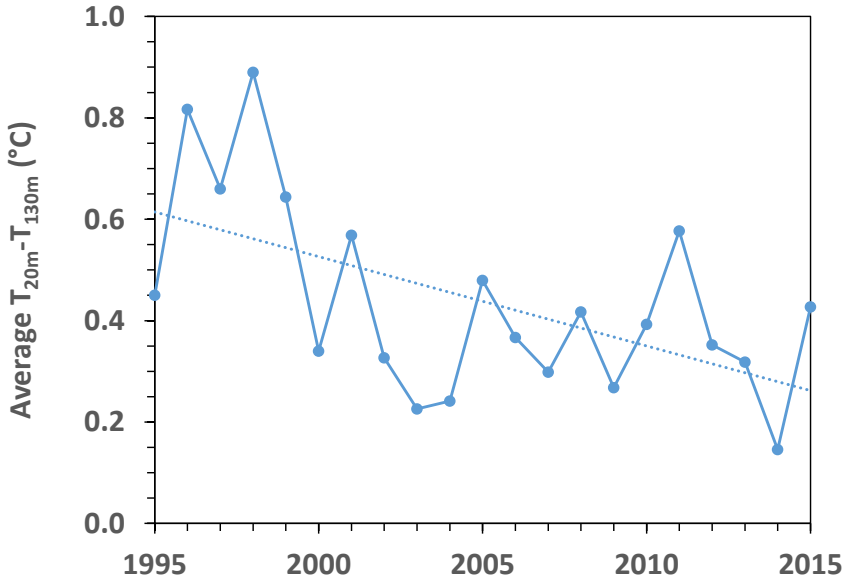

Figure 5: The average difference between temperatures at 20 m depth and at 130 m depth during July to October. $R^2 = 0.32$, $p < 0.01$.

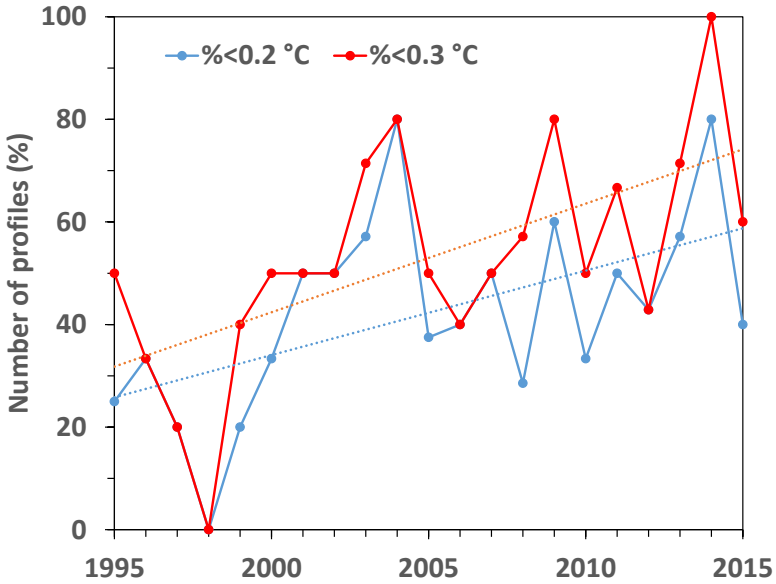

Figure 6: The number of profiles where T_{20m} - T_{130m} was <0.2 °C or <0.3 °C, as a percentage of the total number of CTD profiles collected during July-October. $p < 0.05$ and $R^2 = 0.28$ for $T_{20m} – T_{130m} < 0.2$ °C, and $p < 0.005$ and $R^2 = 0.37$ for $T_{20m} – T_{130m} < 0.3$ °C.

While there is evidence that the winter time temperature gradients have become smaller, because of the low frequency of data collection it is harder to determine with certainty whether the mixing period has increased. However, it does seem likely to be the case. The fact that $T_{20m} - T_{130m}$ was <0.3 °C in all five profiles collected in July to October 2014 (and $T_{20m} - T_{130m}$ was <0.2 °C in all four profiles in July to mid-October) is consistent with the conclusion of a long mixing season in 2014, lasting nearly 3 months from about mid-July to mid-October (Figure 4). The number of days between the first and the last record during a year of $T_{20m} - T_{130m}$ <0.3 °C has increased (Figure 7). This analysis is from necessity imprecise. On average there were only 3.3 profiles per year where $T_{20m} - T_{130m}$ was <0.3 °C and in some years there were only two profiles (in those cases these were the first and the last profiles with $T_{20m} - T_{130m}$ <0.3 °C without profiles in the intervening period. Years with less than 2 profiles where $T_{20m} - T_{130m}$ was <0.3 °C naturally do not show in Figure 7). We don't know what temperature gradients may have been shortly before or after these dates or in the intervening periods. Therefore, the estimate of the duration of the mixing period is imprecise and is likely to be an underestimate. Nevertheless, the period of winter mixing appears to have increased ($R^2 = 0.31$, $p < 0.05$). The trend line suggests that the period where $T_{20m} - T_{130m}$ <0.3 °C about doubled since 1995.

Data of the Taupo Monitoring Buoy (Verburg 2016), because of its far higher measurement frequency, are more suitable to derive estimates of the duration of the mixing period and its intensity.

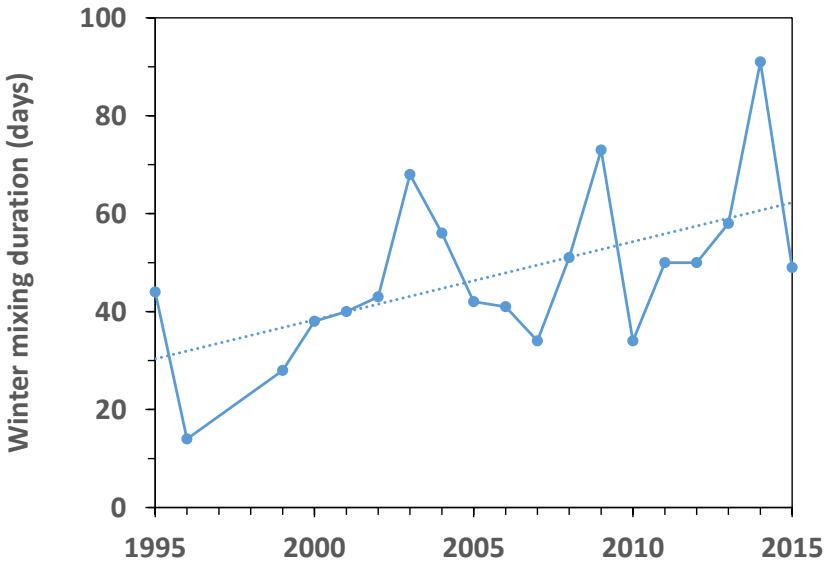

Figure 7: **Number of days of winter mixing periods (T_{20m}-T_{130m} < 0.3 °C).** $R^2 = 0.31$, $p < 0.05$.

Table 1: R^2 and significance of trends in annual mean temperature gradients. Results for full year means, winter mixing periods (July-October), and for August-September when the gradients are least (n =21 in all cases).

	T_{0m}-T_{50m}	T_{10m}-T_{50m}	T_{20m}-T_{60m}	T_{20m}-T_{100m}	T_{20m}-T_{120m}	T_{50m}-T_{120m}	T_{20m}-T_{130m}	T_{50m}-T_{130m}	T_{20m}-T_{150m}
R^2									
Jan-Dec	0.00	0.00	0.01	0.02	0.03	0.43	0.01	0.41	0.04
Jul-Oct	0.19	0.12	0.08	0.30	0.30	0.25	0.32	0.33	0.42
Aug-Sep	0.07	0.14	0.13	0.30	0.25	0.19	0.24	0.19	0.27
p									
Jan-Dec	ns	ns	ns	ns	ns	<0.005	ns	<0.005	ns
Jul-Oct	<0.05	ns	ns	<0.05	<0.01	<0.05	<0.01	<0.01	<0.005
Aug-Sep	ns	<0.1	ns	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05

Analysis of temperature differences for nine different combinations of depths showed that trends in annual mean temperature differences were usually not significant (Table 1), probably because of inter-annual variability in surface warming during summers. The examined trends were most frequently significant in the winter period and where most of the water column was considered in the temperature gradient. Trends in shallower gradients were typically not significant which suggest that the strength of the stratification in the thermocline has not changed much. All 27 examined trends were decreasing (Table 1).

There were no significant trends in annual mean temperatures (n = 21) at any of the depths every 10 m from 0 to 150 m depth. These trends were negative at depths 0 to 50 m and positive at all depths below 50 m. There were no significant trends in winter mean temperatures (July-October, n = 21) at any of the depths every 10 m from 0 to 150 m depth. These trends were negative (decreasing) at depths 0 to 40 m and positive (increasing) at all depths below 40 m. The difference in trend directions between the shallower and deeper sections of the water column is consistent with the observed decrease in the temperature gradient, resulting in an enhanced potential for vertical mixing, making dissolved nutrients available for longer to algae in the surface layer.

The lowest average $T_{20m} – T_{130m}$ during July to October occurred in 2014 (Figure 5) and the percentage of CTD profiles where $T_{20m} – T_{130m}$<0.3 °C was highest in the winter of 2014 as well (100%, out of 5 profiles), since 1995 (Figure 6). This coincided with a prolonged period of low NO_3-N and DRP in bottom water and the highest maximum chlorophyll *a* in the surface layer measured since 1995 (see below). There was significant correlation ($p < 0.01$) between annual mean chlorophyll *a* and the mean temperature difference in July to October between 20 and 130 m depth (Figure 8), confirming that winters with low temperature gradients enhance algal growth. Negative correlations between annual mean chlorophyll *a* and the percentage of temperature profiles with the difference $T_{20m} – T_{130m}$<0.2 °C (data in Figure 6), and the number of days each year where $T_{20m} – T_{130m}$<0.3 °C (data in Figure 7), were significant as well ($p < 0.05$ in both cases).

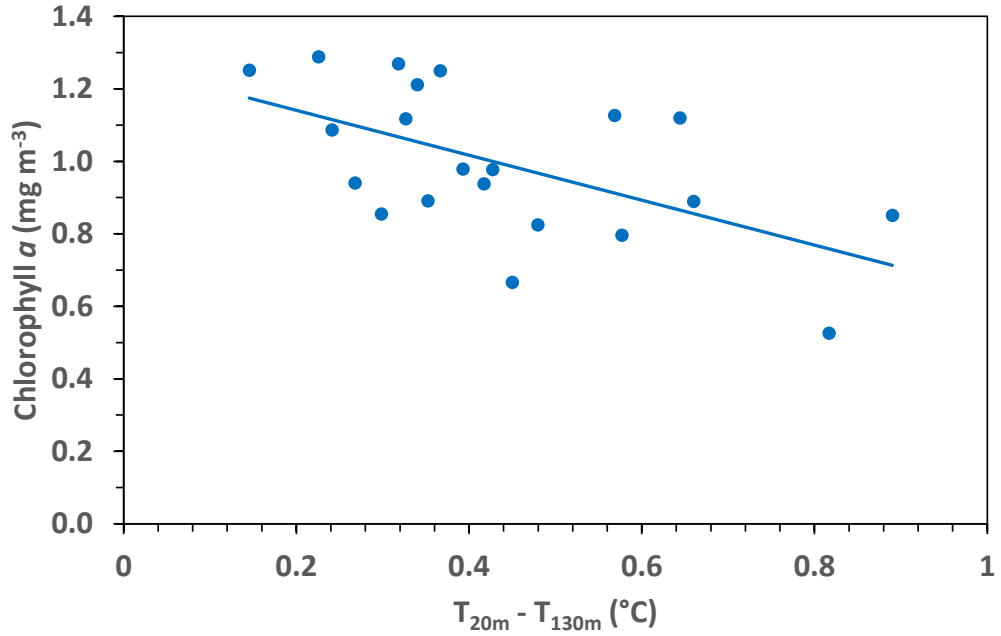

Figure 8: Annual mean chlorophyll *a* concentration against the mean temperature difference T_{20m}-T_{130m} in July-October. R^2 = 0.33, p < 0.01.

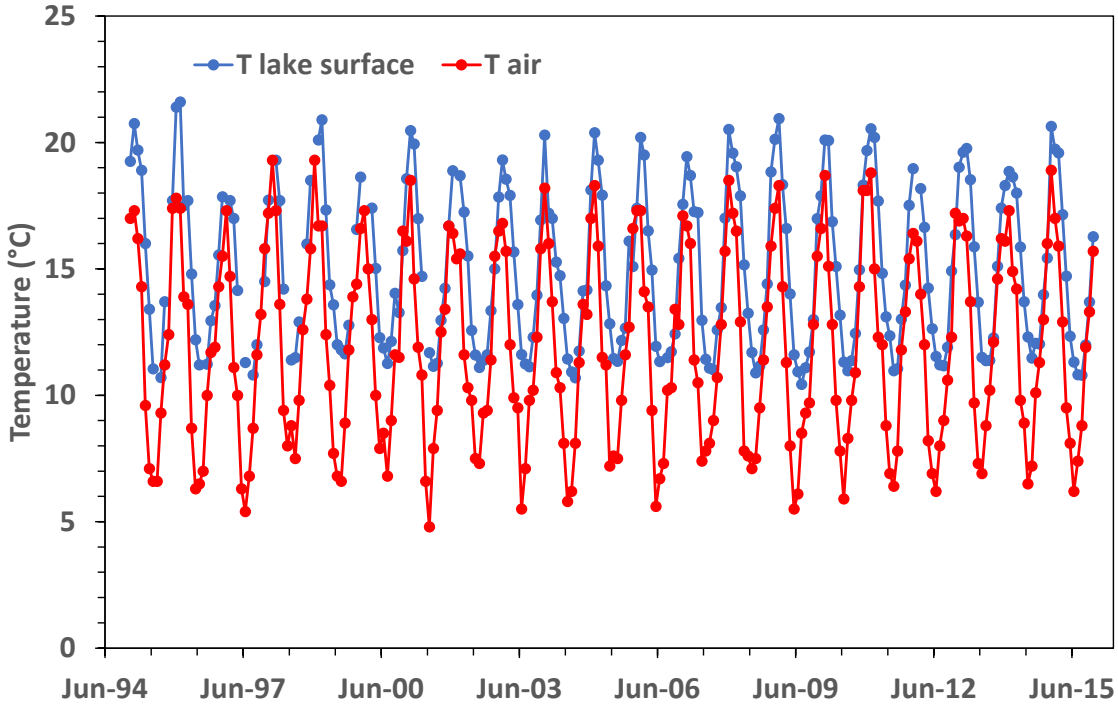

Figure 9: Lake surface temperature and monthly mean air temperature. Air temperature from the Taupo Automatic weather station (NIWA Climate data base).

The lake surface becomes warmer in summer than the air (Figure 9), as is common in lakes (it must be kept in mind that air temperature was not measured over the lake but inshore at some distance from the lake). In winter, the temperature of the water surface remains up to about 5 °C above monthly mean air temperatures. Naturally, night time air temperatures likely drop further, while there will be much less change in water surface temperatures between day and night because of the thermal inertia of water. The cold air contributes to the cooling of the lake during winter by sensible heat loss while heat loss by evaporation will be high as well during winter when air temperatures are well below the temperature of the lake (Verburg and Antenucci 2010).

The monthly mean temperature difference between the lake surface (daytime measurements only) and the air (Ts-Ta) was on average 3.10 °C since 1995, and 2.92 °C in this monitoring year. There has been no significant trend in this temperature difference. The temperature difference between the lake surface and the air at the Taupo automatic monitoring buoy (Verburg 2016) was less, 1.87 °C, mainly because of an about 1 °C higher mean air temperature over the lake compared with on land, as a result of heat exchange with the lake by sensible and evaporative heat loss (Verburg and Antenucci 2010). In addition, the Taupo buoy data include night time measurements of lake surface temperature (every 1 minute). Monthly mean Ts-Ta was highest during winter. In this monitoring year it was negative only in December 2014 (-0.6 °C, using Taupo Aws data).

3.2 Dissolved oxygen

During summer, dissolved oxygen decreases - in deep water because of consumption during decomposition of organic matter, and in shallower water because warmer water can contain less oxygen and a surplus is released to the atmosphere (Figure 10). During summer, oxygen concentrations were highest at about 30 to 40 m depth (Figure 11). During winter, dissolved oxygen increases in the bottom water because of mixing with shallower water richer in oxygen. Dissolved oxygen rarely dropped below 7 mg m^{-3} at any depth and in April 2015 the lowest value at 130 m depth was 7.5 mg m^{-3}, and 7.1 mg m^{-3} at 150 m depth. The average annual minimum concentrations since 1995 (1994 data did not include the late summer months) were 7.2 mg m^{-3} at 130 m depth and 7.0 mg m^{-3} at 150 m depth. Therefore, the minimum dissolved oxygen concentrations in 2014-2015 were above the average.

Figure 11 shows the high concentrations of oxygen throughout the water column during winter and the depletion of oxygen during the 2014-2015 summer in more detail. From about the end of March oxygen concentrations in the hypolimnion started to increase again. Figure 11 also shows that once the water column has become isothermal it still takes some time before oxygen is mixed throughout the water column.

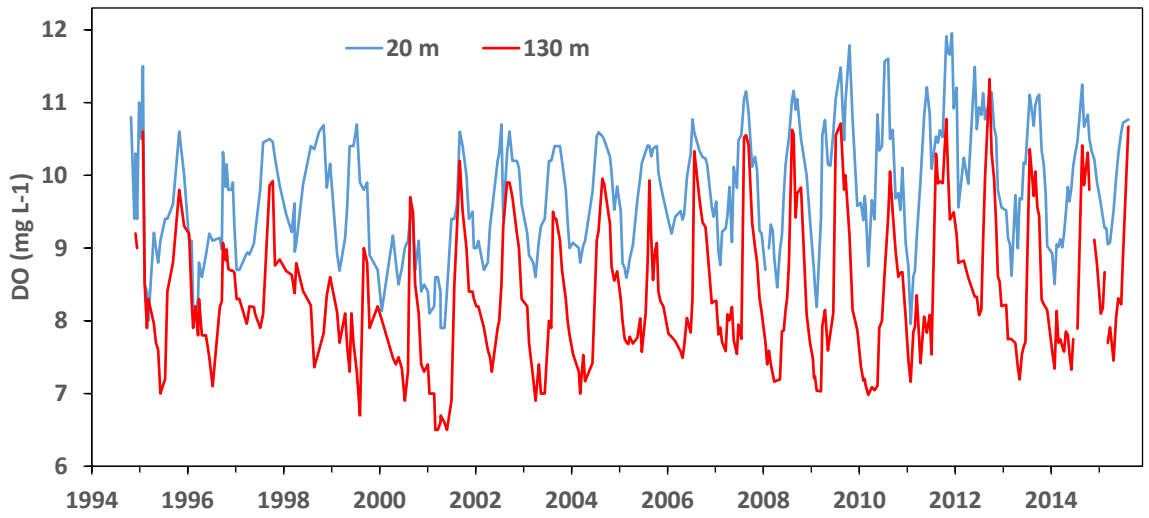

Figure 10: Dissolved oxygen at 20 m and 130 m depth.

The net VHOD rate was estimated for the period between August 2014 and March 2015 based on oxygen profile data collected at site A. VHOD calculations were made using the volume-weighted mean DO concentration below 70 m on each sampling occasion (Figure 12) – see Appendix 2 for more detail. Total dissolved oxygen below 70 m depth reached a maximum in August 2014 soon after the start of the winter overturn by mixing with oxygen saturated water from the surface layer and steadily decreased until March 2015. Total oxygen present below 70 m depth started to increase after March (Figure 12) which was confirmed by the profile data in Figure 11. The net VHOD rate in 2014-2015 was 11.8 ± 2.5 mg m^{-3} d^{-1} (mean ± 95% confidence limit), about half of what it was the previous year (Figure 13). Using data only starting from 20 October, by which time the lake was stratified, made little difference (11.8 ± 3.3 mg m^{-3} d^{-1}). Net VHOD was the lowest since the 2006-2007 monitoring year, in spite of the chlorophyll *a* maximum measured in September 2014 being the highest since monitoring started in 1994 (see section 3.4).

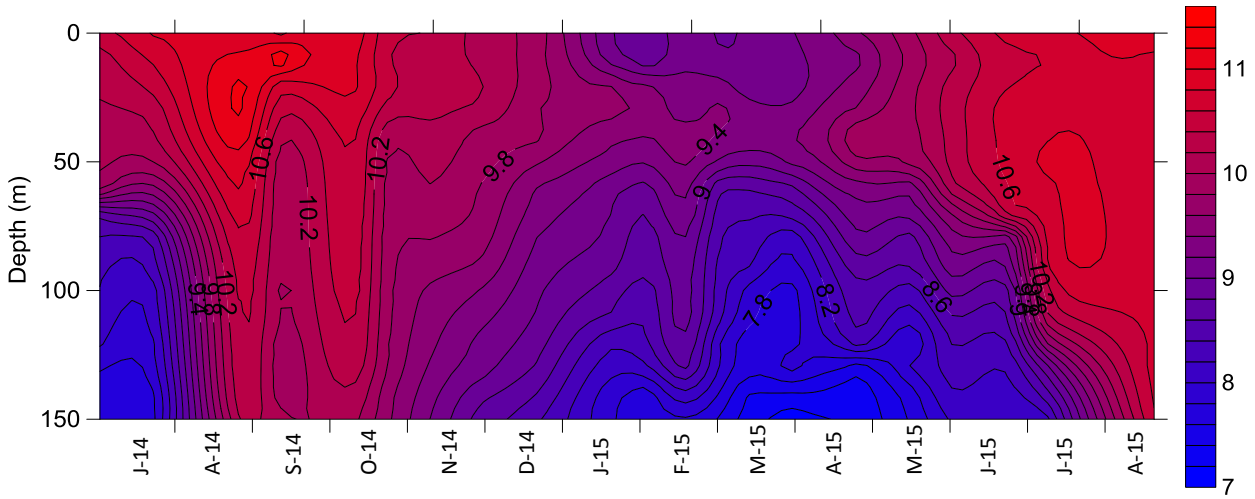

Figure 11: Contour plot of oxygen (mg L^{-1}), 1 July 2014 - 13 August 2015.

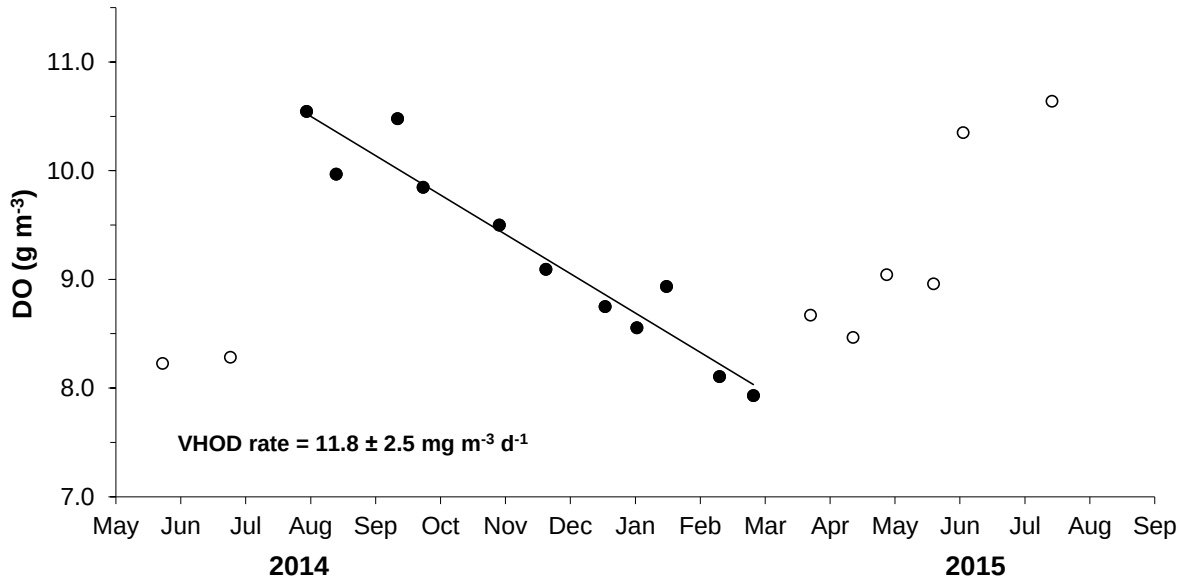

Figure 12: Net VHOD rate during the 2014-2015 monitoring period. Volume-weighted mean dissolved oxygen (DO) concentrations below 70 m depth for 2014-2015. Dissolved oxygen concentrations during the period of steady decline in the summer of 2014-2015 are indicated by closed circles and in the following period when mixing in spring and winter enhanced dissolved oxygen concentrations the data are indicated by open circles. The last few data of the preceding year (2013-2014) are also indicated by open circles. The slope of the linear regression through the closed circles provides the net VHOD rate ($p < 0.00001$, $R^2 = 0.96$, $n = 11$).

Net VHOD has increased since 1995 (Figure 13), and more precipitously since the minimum in 1999 (VHOD data prior to 2014-2015 were taken from Gibbs 2015). The positive trend since 1995 was statistically significant ($p < 0.00005$). However, the fairly steady increase in VHOD since 1999 may have come to an end in 2012-2013 (Figure 13). There was no trend in chlorophyll *a* that could explain the more than tenfold increase in VHOD from 1999 until 2013 by decomposition of organic matter in the hypolimnion derived from phytoplankton in the epilimnion. Various explanations are possible, including the decomposition in the hypolimnion of organic matter that is produced in the trophic layer within a shorter time frame. This could result in a greater VHOD while not necessarily affecting the oxygen concentrations in the hypolimnion if a similar total amount of oxygen was consumed. There was indeed no corresponding negative trend in minimum oxygen concentrations since 1999 to reflect an increase in hypolimnetic oxygen depletion. In fact, the annual minimum oxygen concentration at 130 m depth (Figure 10) has increased slightly since 1999, and this increase was significant ($p < 0.05$). Other explanations, such as changes in allochthonous organic carbon, are unlikely in view of the very large change in net VHOD. Most oxygen consumption in this lake, which is large and has a long residence time (11 years), must be based on autochthonous carbon.

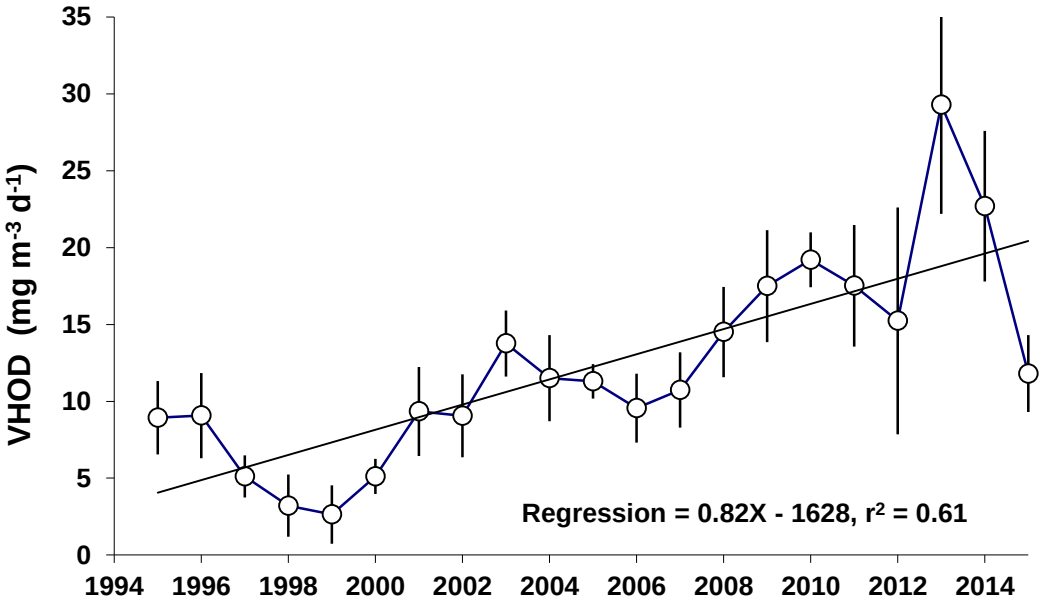

Figure 13: Time-series VHOD data. Time-series of VHOD rates since 1994-1995. The regression (p <0.00005, R^2 = 0.61, n = 21), refers to the change in VHOD since 1994. Bars are 95% confidence limits. Data of Gibbs (2015) were used for the VHOD prior to 2014-2015.

3.3 Secchi depth

In this monitoring year, Secchi depth was lowest in August 2014 (11.0 m) and highest in February-March (18.0 m; Figure 21). There has been no significant trend in Secchi depth since 2000 (Figures 14 and 22). There was no trend in the day of the year at which Secchi depth was lowest, and the average day was 5 September. There were no significant trends in the annual minimum or maximum Secchi depths, the difference between the annual minimum and maximum, or in the annual standard deviation.

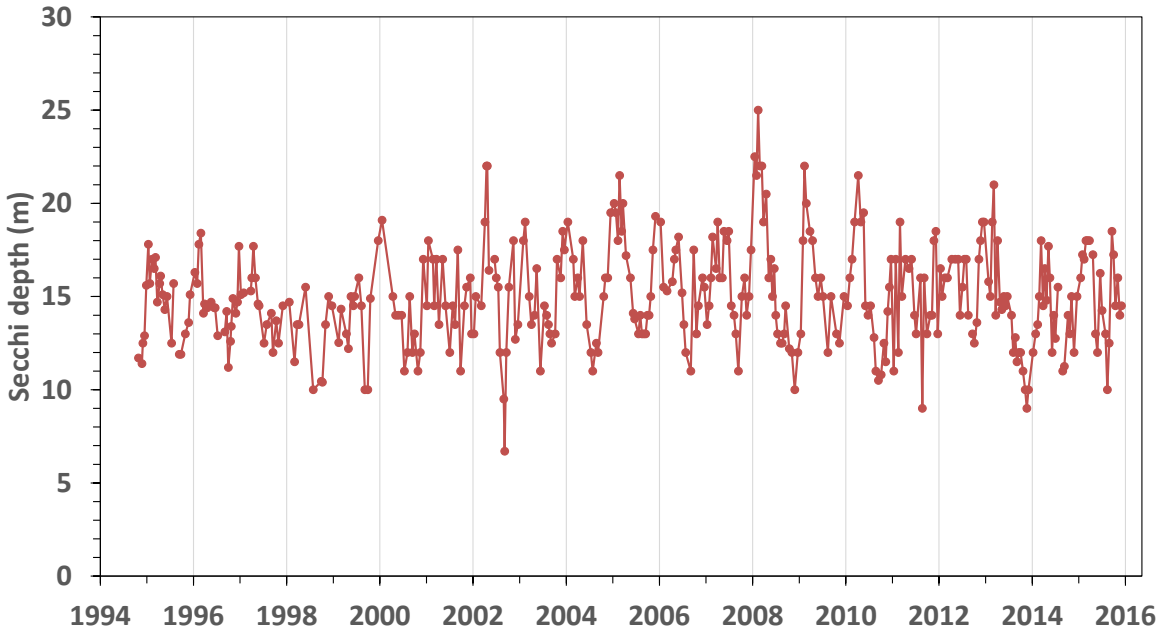

Figure 14: Time series of Secchi depth.

3.4 Phytoplankton

The annual maximum chlorophyll *a* concentration measured on 9 September 2014 (3.8 mg m^{-3}, Figure 21) was the highest measured since 1994, and on 30 July 2015 the fifth highest annual maximum occurred (Figure 15). Chlorophyll was lowest from late November 2014 to the end of January 2015 (Figure 21). Secchi depth and chlorophyll *a* concentrations were inversely correlated in the monitoring year (R^2 = 0.30). Chlorophyll *a* concentrations and particulate carbon were correlated (R^2 = 0.36). There was a reasonable inverse correlation between annual means of Secchi depth and chlorophyll *a* concentrations after 2000 (R^2 = 0.46). Chlorophyll *a* concentrations increased between 1995 and 2000, possibly related to an eruption of Mount Ruapehu (Gibbs 2015). There has been no significant trend in chlorophyll *a* concentrations since 2000 (Figures 15 and 22). There was no significant trend in the day of the year at which chlorophyll *a* was highest, and the average day was 13 August.

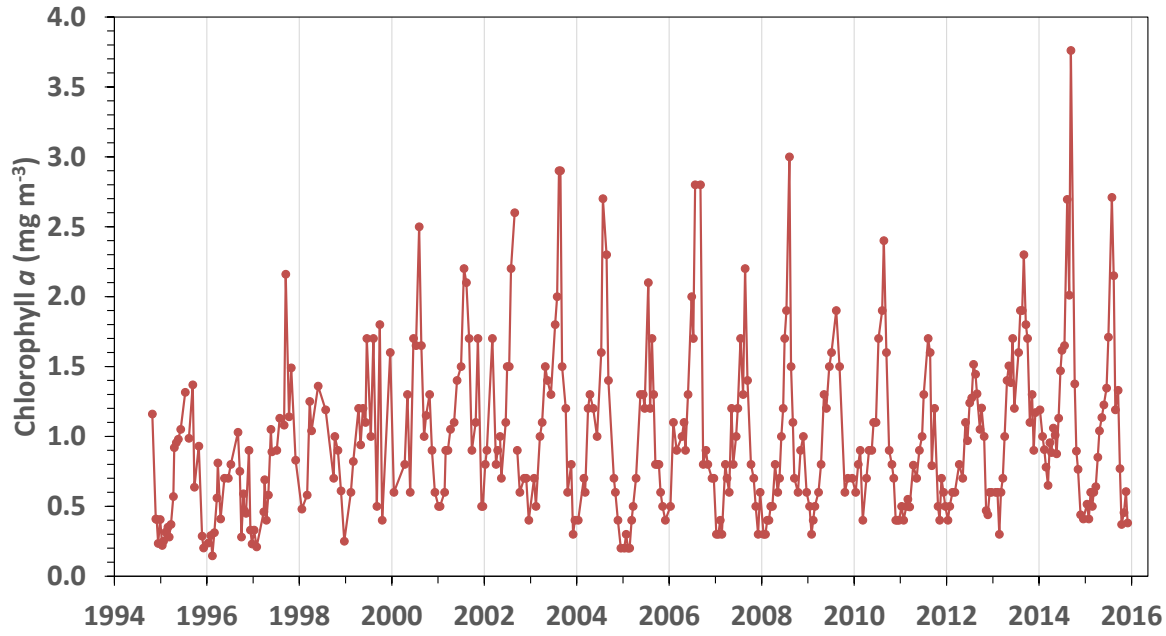

Figure 15: **Time series of chlorophyll a concentrations.**

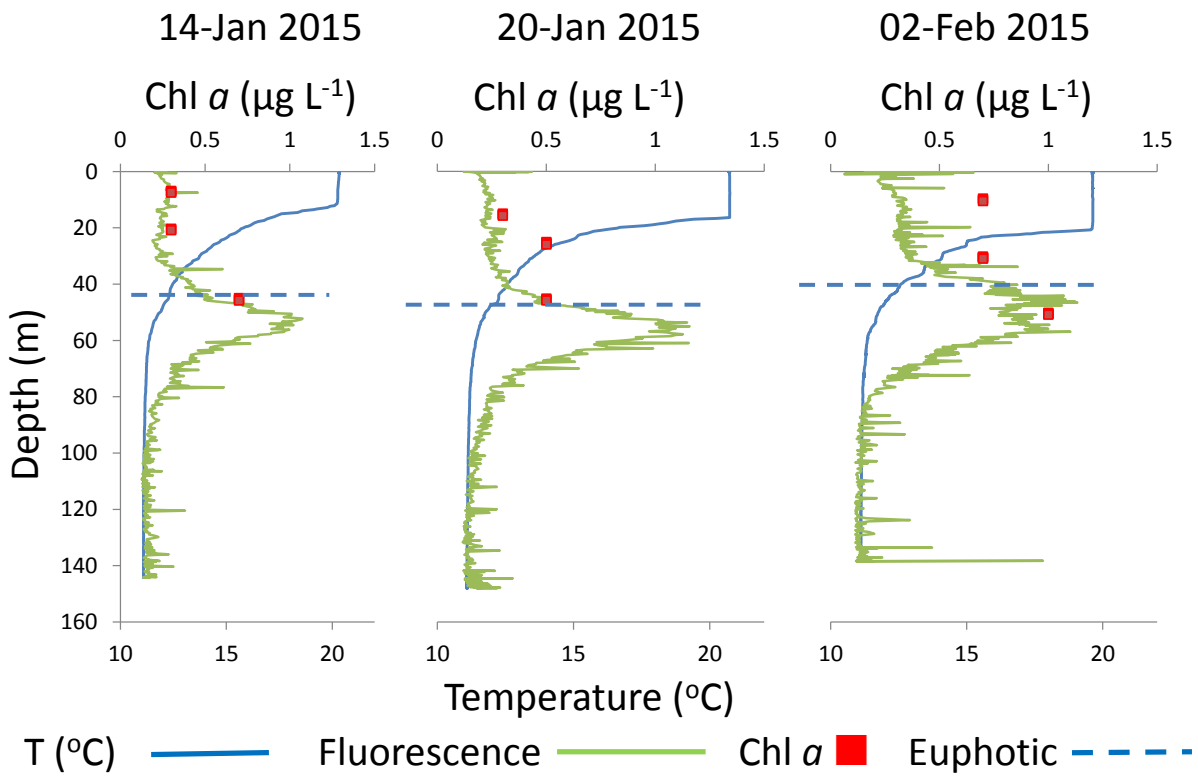

Figure 16: ***In situ*** **chlorophyll fluorescence and temperature profiles during summer stratification.** Discrete chlorophyll *a* samples are also shown and the depth of the euphotic zone is indicated.

During summers, chlorophyll *a* shows a distinct peak in Lake Taupo well below the thermocline, the deep chlorophyll maximum (DCM). Figure 16 shows the peak of *in situ* chlorophyll fluorescence at about 50 to 60 m depth on three sampling dates in the summer of 2015. The thermocline deepened between the three sampling dates probably as an effect of wind mixing. The DCM occurred below the euphotic zone.

Diatoms dominated the algal biomass much of the year at 0-10 m depth (Figure 17), and even more so at 50 m depth (Figure 19). Cyanobacteria were most abundant in April-June, but did not become dominant.

At 10 m depth *Fragilaria crotonensis* dominated algal biomass in July-August 2014, *Aulacoseira granulata* in September-October, *Fragilaria crotonensis* was dominant again in November 2014 – January 2015, although biomass of *Dinobryon* and *Peridinium* species was occasionally high as well during those months. In February to March algal biomass was dominated by dinoflagellates and the green algal species *Botryococcus braunii* and *Ankistrodesmus falcatus* dominated in April to June 2015. In April 2015 a large peak at 0-10 m depth in algae biomass of green algae (Figure 17) was explained almost entirely by *Botryococcus braunii* colonies. Cells in these colonies are not counted separately which is why no corresponding peak is shown in the cell counts (Figure 18).

Algal biomass did not show a marked peak during or soon after the winter overturn, as was shown by chlorophyll *a*, although, apart from the peak in *Botryococcus braunii* in April, there was a general decrease in total biomass during summer and a rapid increase in June. This pattern was more noticeable in the cell counts (Figure 18).

At 50 m depth, algal species composition changed often, with algal biomass being mostly *Asterionella formosa* in July-August 2014 and *Fragilaria crotonensis* the second most abundant, in September to early November *Aulacoseira granulata* took over, which were replaced by *Fragilaria crotonensis* as the dominant species until the end of January. From late February until March peaks of *Fragilaria crotonensis* and *Botryococcus braunii* occurred. March 2015 was the only time this monitoring year that species of a cyanobacteria was dominant (*Dolichospermum cf lemmermannii*). *Dolichospermum cf lemmermannii* was also high in the surface layer at this time, but was less abundant than other non-cyanobacteria algal species. *Botryococcus braunii* and *Volvox aureus* dominated in April at 50 m depth, and *Asterionella formosa* in May-June, with one peak of *Ceratium hirundinella* in late May.

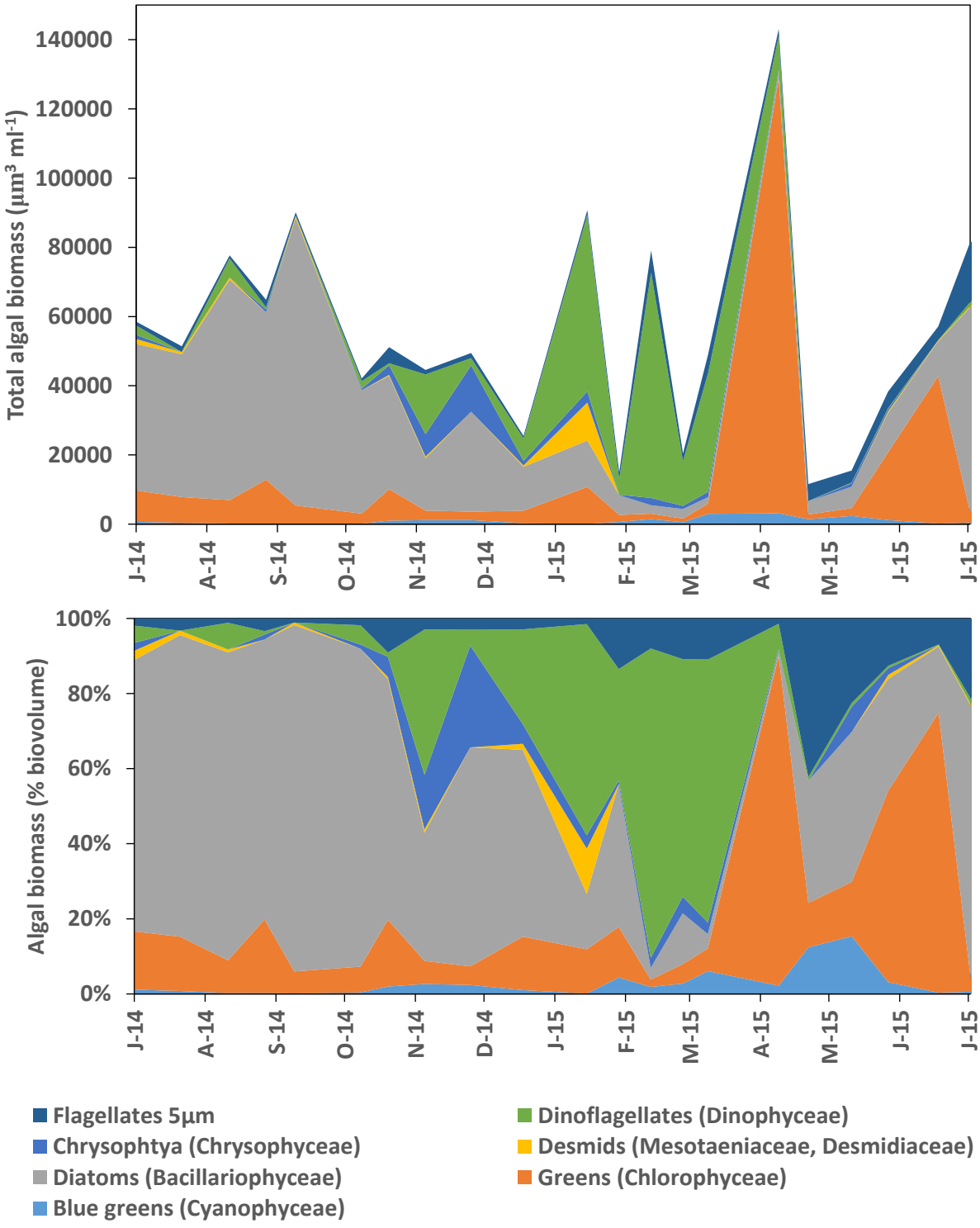

Figure 17: Biovolume for seven major algal groups in the upper 10 m depth, in units of volume and as a proportion.

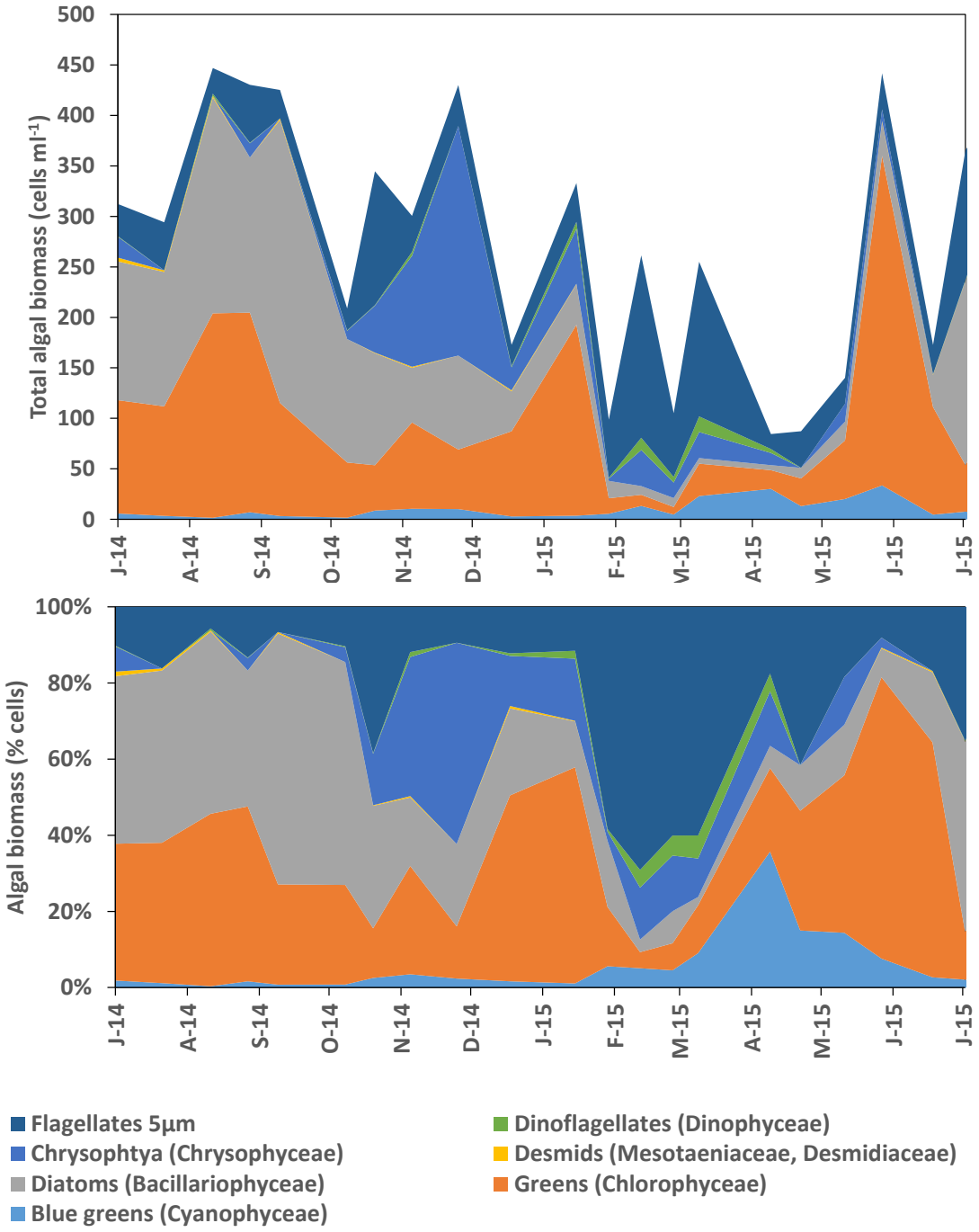

Figure 18: Abundance of seven major algal groups in the upper 10 m depth, in numbers of cells per ml and as a proportion.

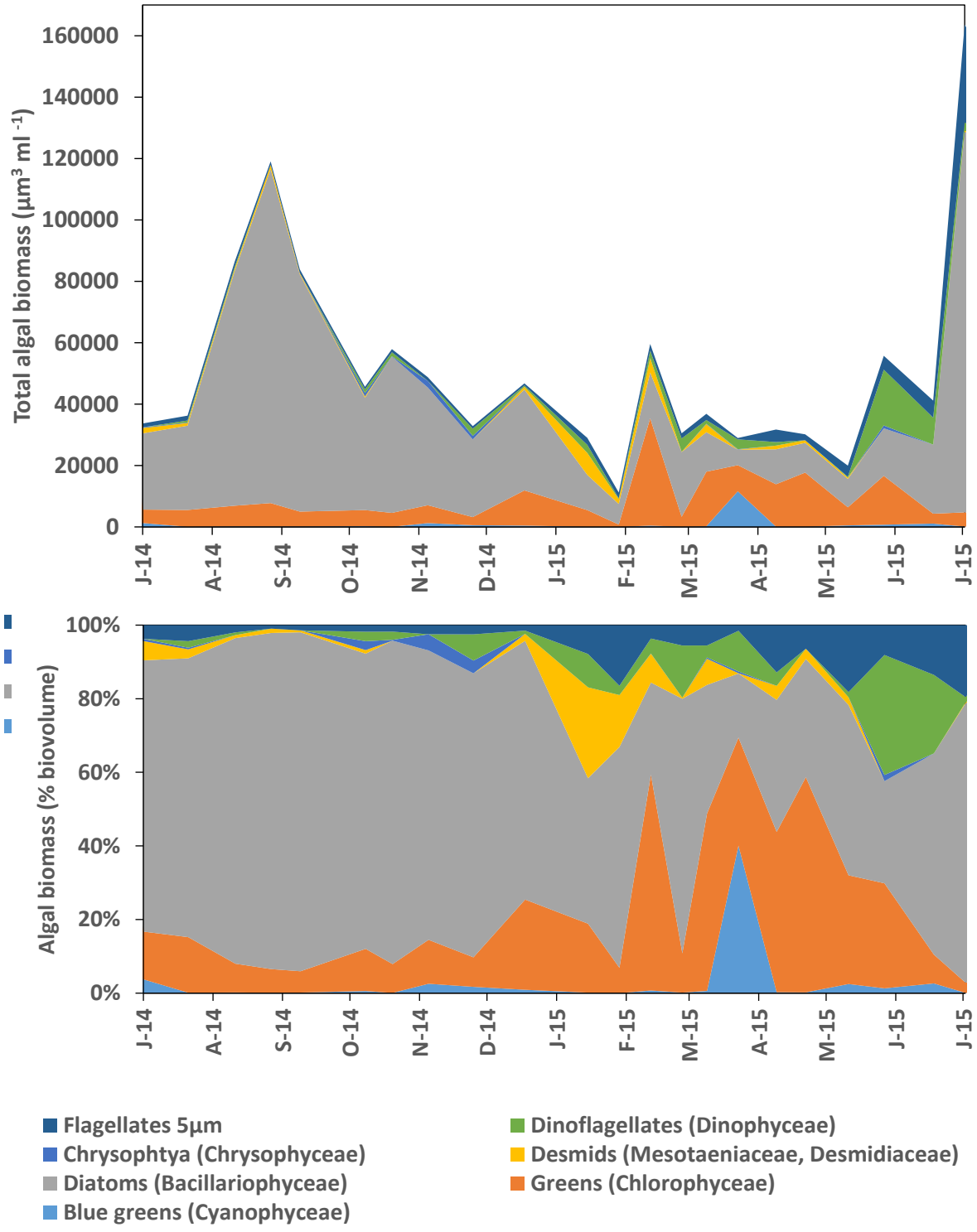

Figure 19: **Biovolume for seven major algal groups at 50 m depth, in units of volume and as a proportion.**

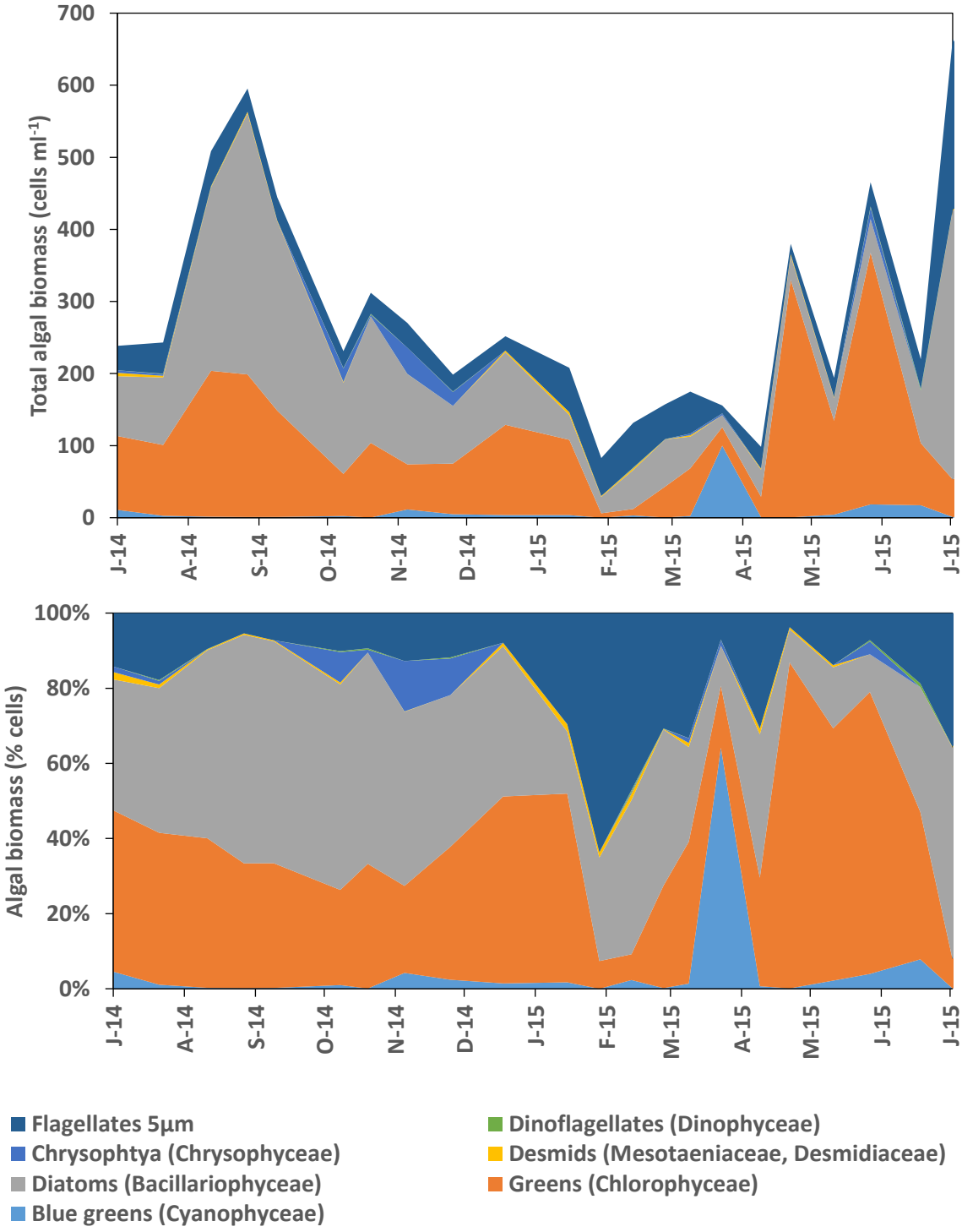

Figure 20: Abundance of seven major algal groups at 50 m depth, in numbers of cells per ml and as a proportion.

3.5 Nutrients in the upper water layer

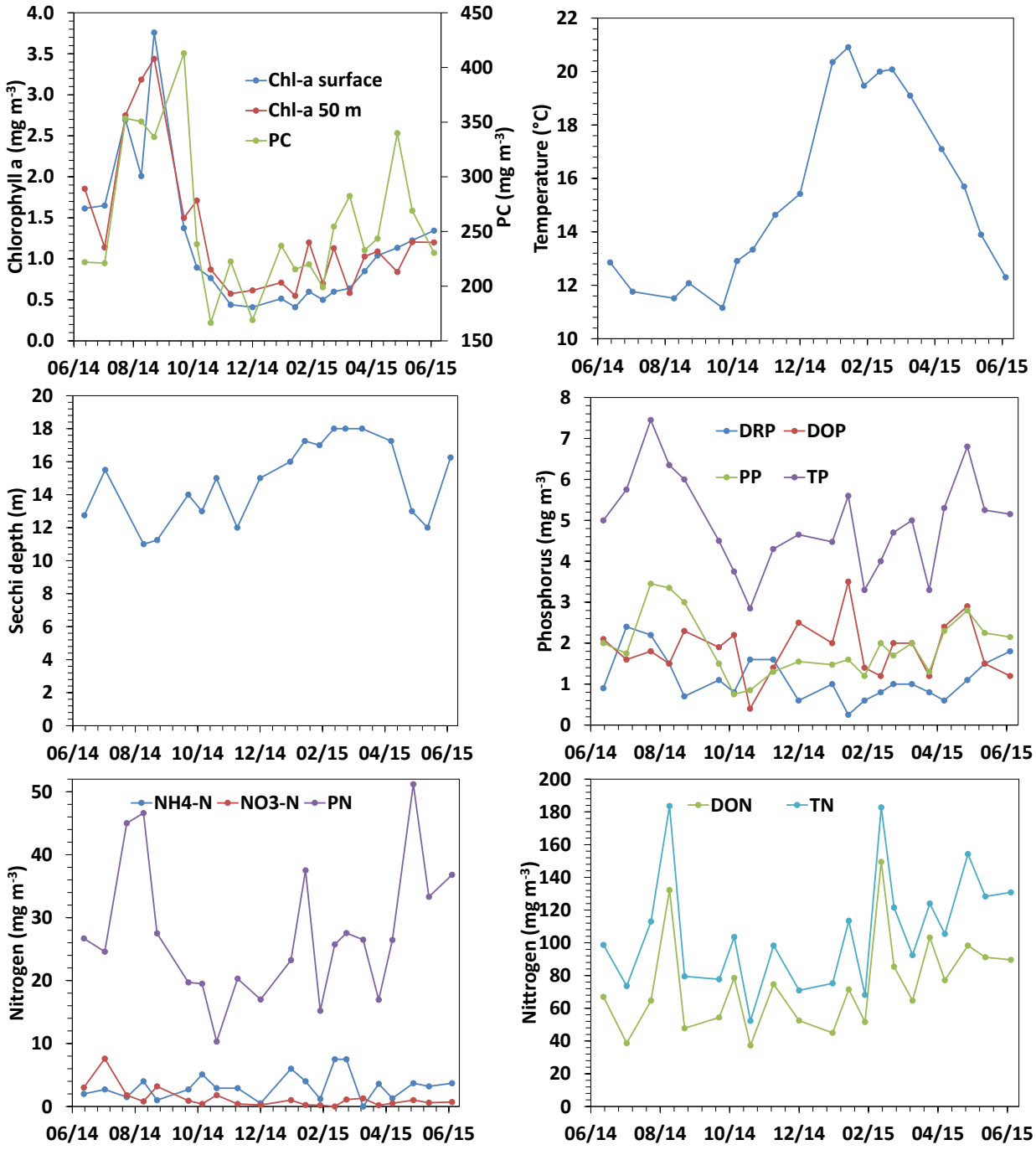

Figure 21: Temperature, Secchi depth, and concentrations of nutrients and chlorophyll *a* in the upper 10 m water layer during 2014-2015. Includes chlorophyll *a* at 50 m depth for comparison in the upper left panel.

Most of the seasonal patterns in nutrients were not strong in 2014-2015. Total and particulate nutrient concentrations were somewhat higher during winter (Figure 21). There were positive trends in total, organic dissolved and particulate nitrogen since 1995 (Figure 22).

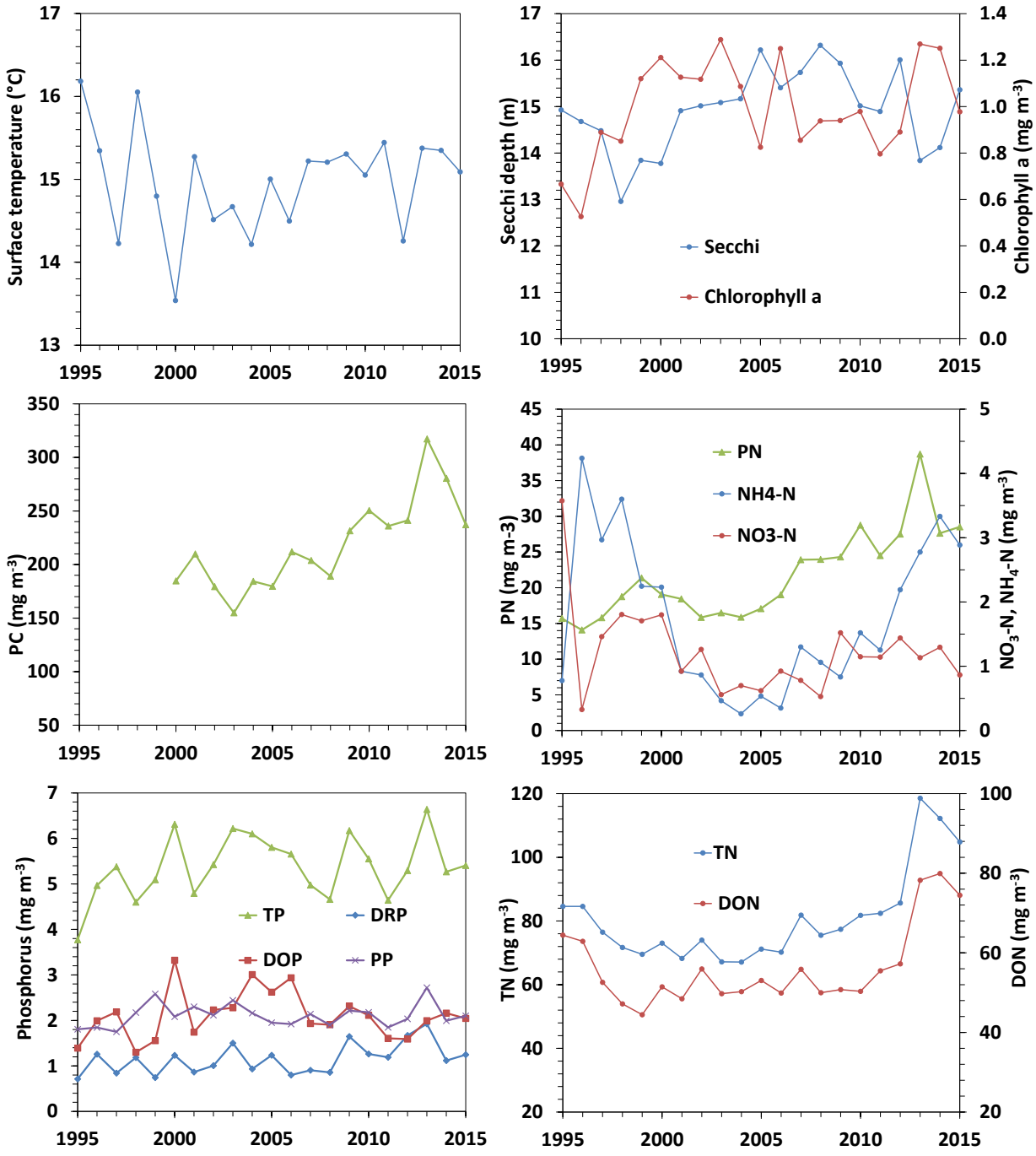

Figure 22: Annual means for temperature, Secchi depth, and concentrations of nutrients and chlorophyll *a* in the upper 10 m water layer during 1995-2015.

3.6 Vertical profiles

Vertical profiles of concentrations of nutrients, oxygen and chlorophyll *a*, temperature and pH are shown in Figures 23-27. The profiles are of spring (25 November 2014) and autumn (9 April 2015). The autumn profiles show the lake still stratified with the thermocline starting below 20 m depth and a larger difference in oxygen concentrations from top to bottom. Chlorophyll *a* was high down to 60 m depth. pH was more stratified in the autumn as well. The difference between the relatively mixed spring profile and the stratified autumn profiles was most marked for dissolved inorganic nutrients, with concentrations increasing with depth. In the autumn TP increased with depth but TN was similar between the surface and bottom water. In the autumn in bottom water about half of TN was DON and the other half consisted mostly of NO_3-N. Particulate carbon decreased with depth in the autumn and dissolved organic carbon did as well, but less markedly.

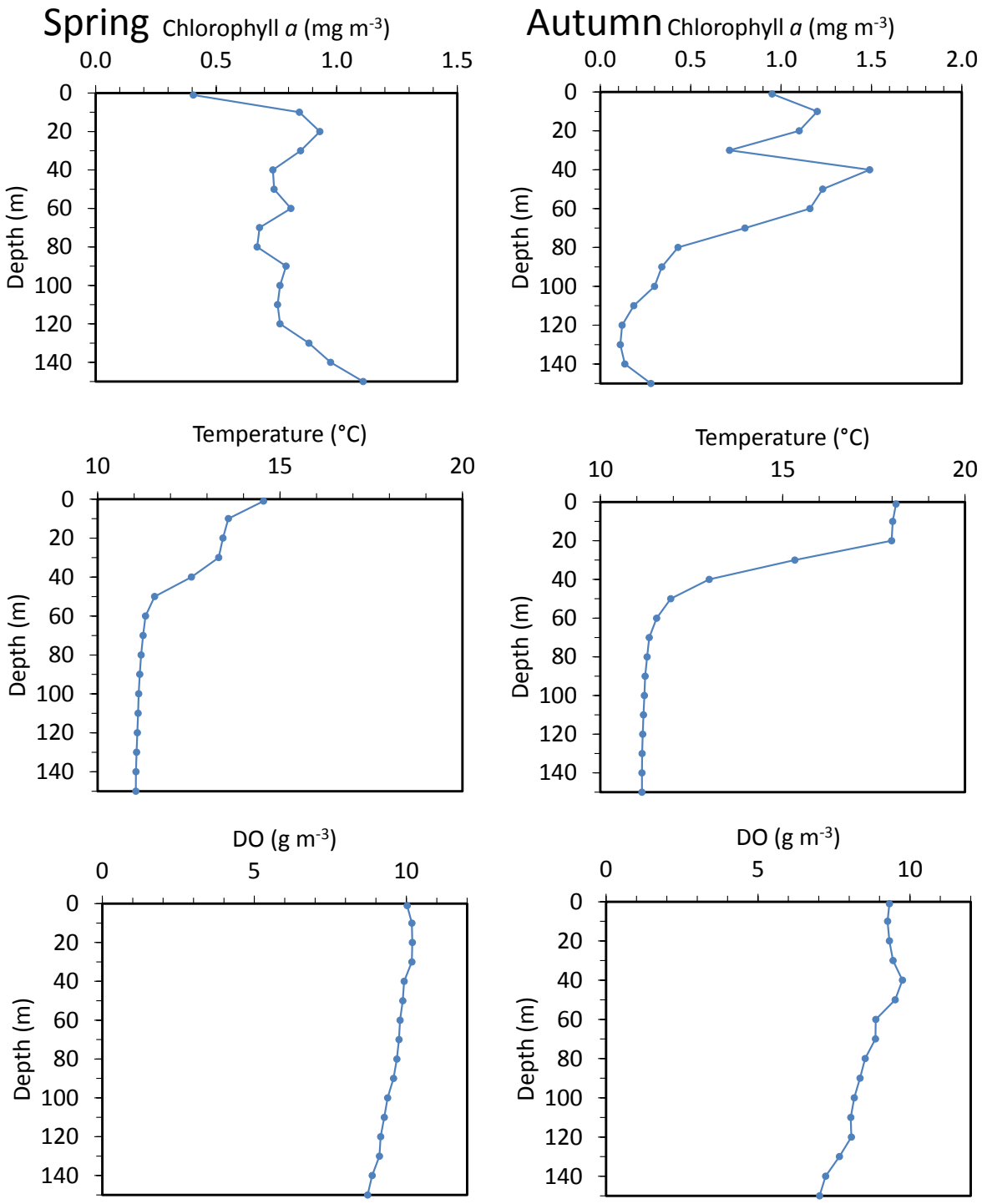

Figure 23: Vertical profiles of concentrations of chlorophyll *a* and oxygen, and temperature, in spring and autumn.

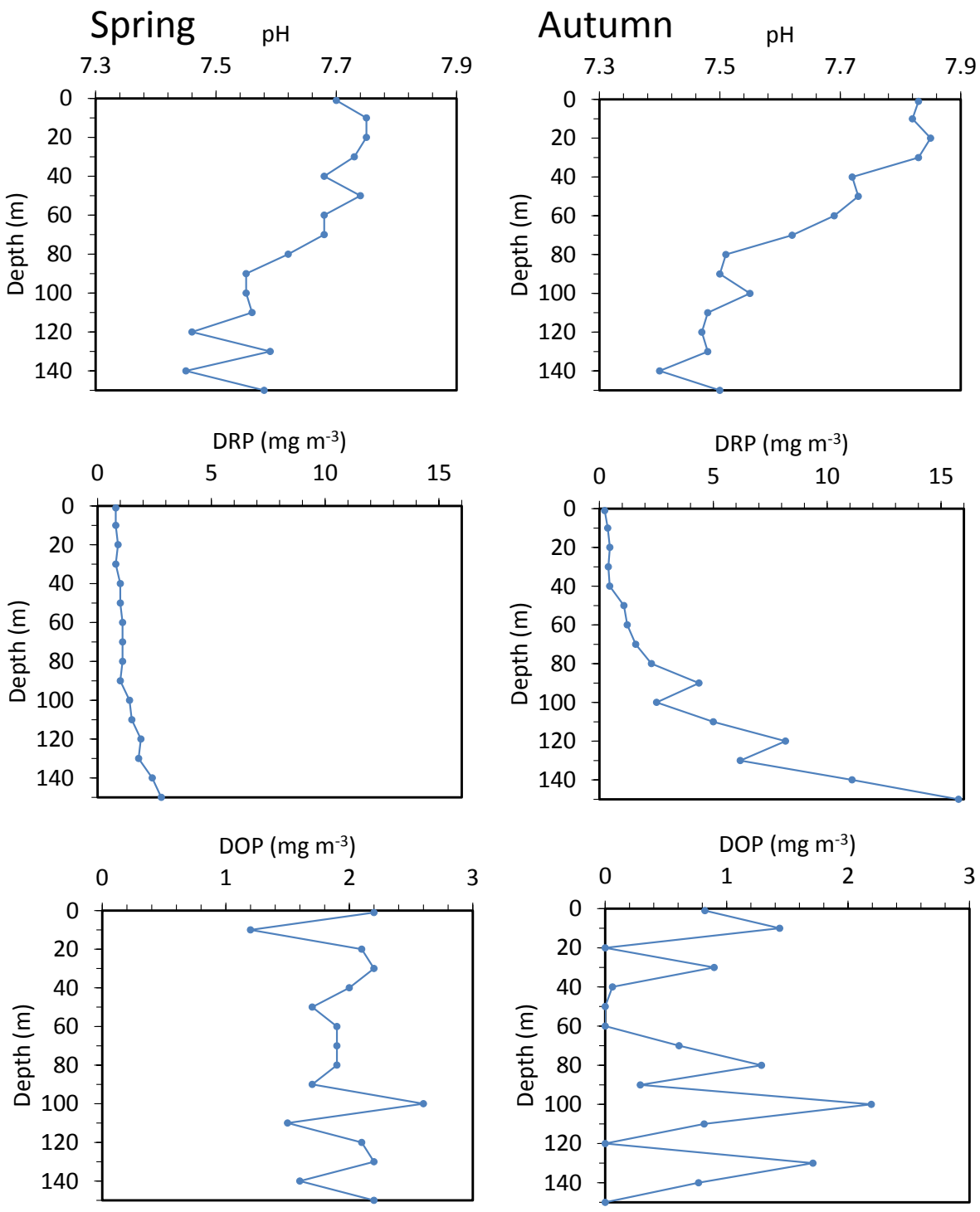

Figure 24: **Vertical profiles of pH and nutrient concentrations, in spring and autumn.**

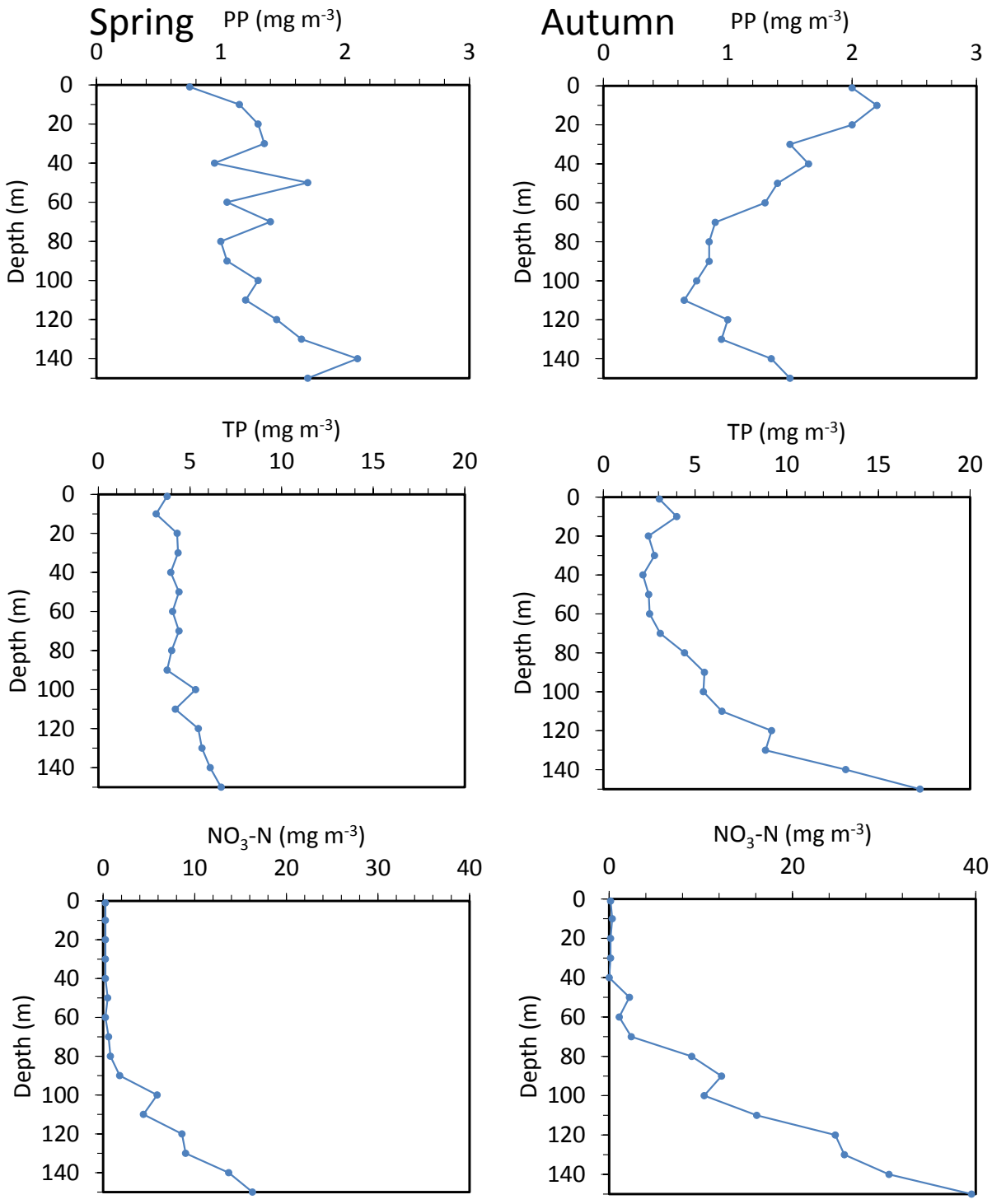

Figure 25: **Vertical profiles of nutrient concentrations, in spring and autumn.**

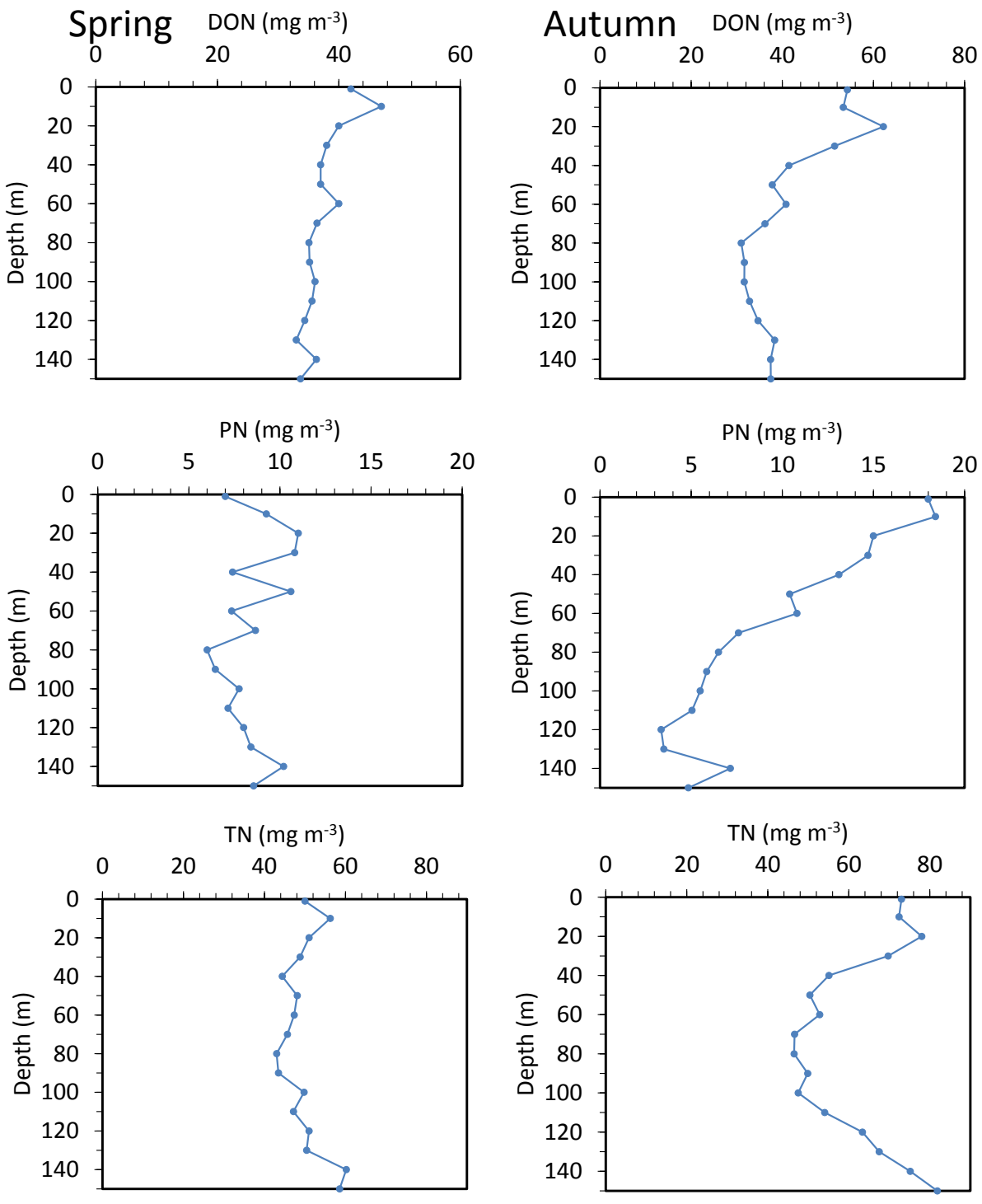

Figure 26: **Vertical profiles of nutrient concentrations, in spring and autumn.**

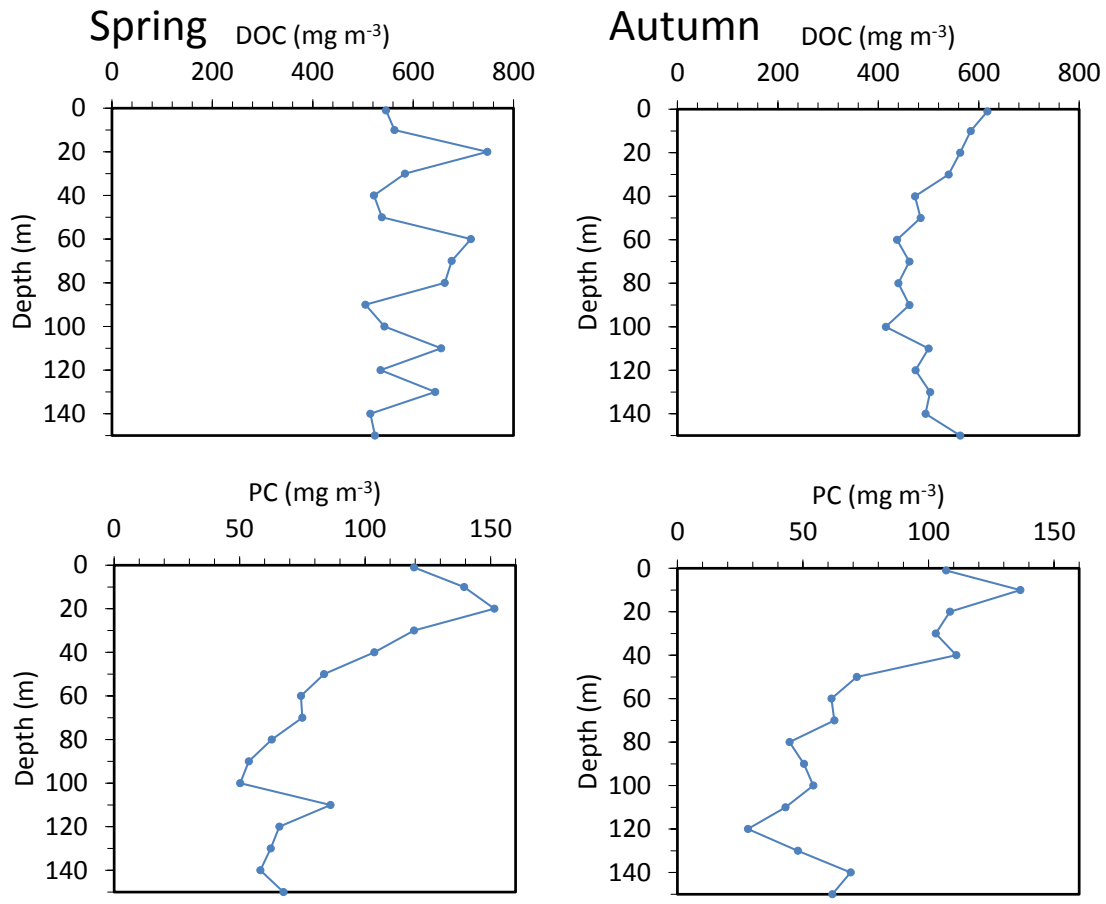

Figure 27: Vertical profiles of concentrations of dissolved organic carbon and particulate carbon, in spring and autumn.

3.7 Nutrient accumulation in the hypolimnion

During summer, when the lake is stratified (i.e., does not mix vertically), organic material sinks out from the phototrophic layer followed by decomposition in bottom water. As a result dissolved nutrients (NO_3 and DRP) accumulate in the hypolimnion. During the winter overturn, the accumulated nutrients are mixed through the entire water column and their concentrations drop in the hypolimnion. In contrast, NH_4 concentrations in the bottom water increase during the winter overturn because of mixing with shallower water where NH_4 concentrations are higher during summer than in the hypolimnion. Whereas NO_3 gets mixed upward during winter, NH_4 gets mixed down in the water column. During summer, NH_4 concentrations in bottom water remain low because of nitrification at the sediment-water interface.

In 2014-2015 the hypolimnetic nutrient concentrations indicated that the mixing period in the winter of 2014 was unusually long, supporting the evidence from temperature gradients. It appears the winter of 2015 was similarly long. In spite of the long mixing season in 2014, delaying nutrient accumulation in the hypolimnion, during the subsequent summer the concentrations of DRP and NO_3 reached maxima not seen before for DRP and not seen since 2003 for NO_3 (Figure 28).

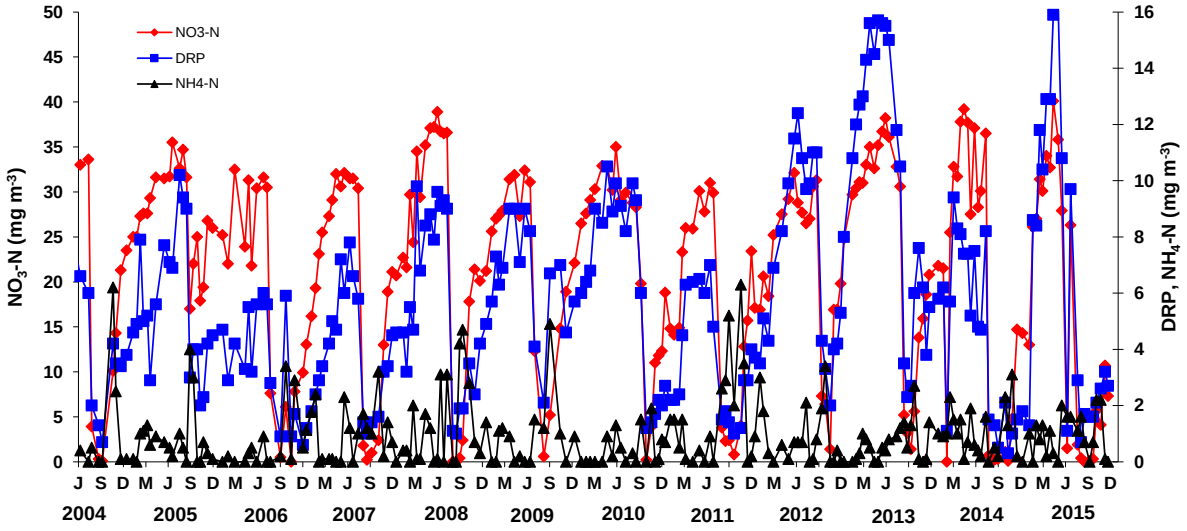

Figure 28: Time series bottom water nutrient data. DRP, NO3-N and NH4-N concentrations in the hypolimnion (150 m depth) of Lake Taupo since winter mixing of 2004.

The long mixing season in 2014 may have resulted in the high algal biomass measured in September 2014 (Figure 15) by delaying the accumulation of dissolved nutrients in the bottom water in spring and keeping them available for algal growth in the surface layer, which in turn may explain the subsequent high peak in hypolimnetic nitrate and dissolved phosphorus (Figure 28).

4 Summary

During this monitoring year, the maximum chlorophyll *a* concentration, measured on 9 September 2014 after the lake had mixed (3.8 mg m^{-3}), was the highest measured since 1994. Algal biomass in the upper water column was low in November 2014- January 2015, consistent with previous years. There was no significant trend in chlorophyll *a* since 2000. There was no significant trend in the day of the year at which chlorophyll *a* was highest, and the average day was 13 August.

Diatoms dominated the algal biomass much of the year at 0-10 m depth, and even more so at 50 m depth. The 2014 winter- spring bloom was dominated by the diatoms *Aulacoseira granulata* and *Fragilaria crotonensis*. *Fragilaria crotonensis* remained dominant until February when dinoflagellates took over, which were replaced by species of green algae in May and June 2015. Cyanobacteria were most abundant in April-June 2015 but never dominated the algal biomass in the surface layer. *Dolichospermum cf lemmermannii* was the most common species of cyanobacteria.

The mean summer temperature (January-March 2015) was 20.0 °C. The surface temperature was highest in January 2015 (20.9 °C) and lowest in October 2014 (11.2 °C). There has been no significant trend in annual mean water surface temperatures, or in annual mean temperatures at any depth. However, there has been a significant decrease in the temperature difference between the surface layer and bottom water during winter, the opposite of the expected effect in a deep lake from a warming climate. There is evidence for increased mixing during winter and for an increase in the duration of the winter mixing period. The mixing period in 2014 lasted nearly three months. Although trends in temperature gradients were mainly significant during winter, it was striking that of nine examined temperature gradients (using combinations of different depths), in three different periods of the year (n = 27), all had decreased, without exception. Moreover, while temperatures at different depths did not change significantly, temperatures trends at all depths above 50 m were negative and below 50 m depth positive. The difference in trend directions between the shallower and deeper sections of the water column was consistent with the observed decrease in the temperature gradient, resulting in an enhanced potential for vertical mixing, and enhancing access to dissolved nutrients for algae in the surface layer.

This topic merits further investigation in view of its great importance for the rate of return of nutrients, accumulated in the hypolimnion by decomposition of organic material produced in the epilimnion, back to the epilimnion where the nutrients are used by algae to grow. There was a significant correlation between annual mean chlorophyll *a* and the mean temperature difference in July to October between 20 and 130 m depth, confirming that winters with low temperature gradients enhance algal growth in Lake Taupo.

One possible explanation for a decrease in mean winter temperature gradients and an increased potential for mixing might be increasing geothermal heat inputs. Because the heat flux from this source enters the lake from below, instead of through the lake surface, it would reduce the temperature differences from top to bottom, whereas the effect of a warming climate is the opposite. An alternative explanation could be a long-term increasing trend in wind speeds. Annual mean wind speeds have increased significantly at Taupo Automatic Weather Station since 1995, by 10%.

The monthly mean temperature difference between the lake surface and the air (Ts-Ta), the latter measured at a weather station in Taupo, was on average 3.10 °C since 1995, and 2.92 °C in this monitoring year. There has been no significant trend in this temperature difference. Monthly mean Ts-Ta was highest during winter (about 5°C). In 2014-2015, it was negative only in December 2014

(-0.6 °C). High winter time Ts-Ta results in cooling of the lake surface by sensible and evaporative heat loss.

In April 2015 the lowest value of dissolved oxygen at 130 m depth was 7.5 mg m^{-3}, and the lowest value at 150 m depth was 7.1 mg m^{-3}. The average annual minimum concentrations since 1995 were 7.2 mg m^{-3} at 130 m depth and 7.0 mg m^{-3} at 150 m depth. Therefore, the minimum dissolved oxygen concentrations in 2014-2015 were above the average. There was a slight but significant increase in annual minimum dissolved oxygen concentrations in the hypolimnion since 1999, in spite of a large apparent increase in net VHOD since 1999.

There was no trend in chlorophyll *a* that could explain the more than tenfold increase in net VHOD from 1999 until 2013 by a change in the amount of organic matter produced by phytoplankton in the epilimnion and decomposing in the hypolimnion. The tenfold increase in net VHOD may be explained by focussing of the decomposition of organic matter in the hypolimnion within a shorter time frame, which could result in a greater VHOD while not necessarily affecting the oxygen concentrations in the hypolimnion if a similar total amount of oxygen was consumed. There was indeed no corresponding negative trend in minimum oxygen concentrations at 130 m depth since 1999 to reflect an increase in hypolimnetic oxygen depletion. Other explanations, such as changes in allochthonous organic carbon, are unlikely in view of the very large change in net VHOD. Most consumption of oxygen in this lake, which is large and has a long residence time (11 years), must be based on decomposition of autochthonous organic carbon. However, the increase in VHOD since 1999 may have come to an end in 2012-2013. The net VHOD rate in 2014-2015 was 11.8 ± 2.5 mg m^{-3} d^{-1}, about half of that in the previous year. Net VHOD in 2014-2015 was the lowest since the 2006-2007 monitoring year.

Lowest water clarity values, in August (11.0 m) and September 2014 (11.2 m), corresponded with high chlorophyll *a* concentrations. Water clarity was highest in February-March (18.0 m). There was a negative correlation (R^2 = 0.30) between Secchi depth and chlorophyll *a* in 2014-2015. There was also a reasonable inverse correlation between annual means of Secchi depth and chlorophyll *a* since 2000 (R^2 = 0.46). There was no significant trend in water clarity since 2000. There was no trend in the day of the year at which Secchi depth was lowest, and the average day was 5 September. There were no significant trends in the annual minimum or maximum Secchi depths, or in the difference between the annual minimum and maximum.

During the winter overturn, the nutrients (nitrate and dissolved phosphorus), that had accumulated in the hypolimnion during summer, were mixed through the entire water column and their concentrations dropped in the hypolimnion. In contrast, ammoniacal nitrogen (NH_4) concentrations in the bottom water increased during the winter overturn because of mixing with shallower water where NH_4 concentrations are higher during summer than in the hypolimnion. Whereas nitrate gets mixed upward during winter, NH_4 gets mixed down in the water column. During summer NH_4 concentrations in bottom water remain low because of nitrification at the sediment-water interface.

A prolonged period of low nitrate and dissolved phosphorus in bottom water during 2014, compared with previous years, and the highest maximum chlorophyll *a* in the surface layer measured since 1995 in the winter of 2014 coincided with, and may have been caused by extreme low density gradients in the water column. The lowest average temperature difference between 20 m and 130 m depths during July to October occurred in the winter of 2014. In addition, the percentage of profiles where the water temperature difference between 20 m and 130 m depths was <0.3 °C was highest in the winter of 2014, since 1995.

In 2014-2015 the hypolimnetic dissolved nutrient concentrations indicated that the mixing period in the winter of 2014 was unusually long, supporting the evidence from temperature gradients. The mixing period in the winter of 2015 was similarly long. In both years nutrients concentrations in the hypolimnion increased more slowly after the winter minimum in bottom concentrations than in previous years, suggesting a long lasting mixing season. In spite of the long mixing season in 2014, delaying onset of nutrient accumulation in the hypolimnion during the subsequent summer, the concentrations of nitrate and dissolved phosphorus reached maxima not seen before for dissolved reactive phosphorus and not seen since 2003 for nitrate.

The long mixing season in 2014 may have resulted in the high algal biomass measured in September 2014 by delaying the accumulation of dissolved nutrients in the bottom water and keeping them available for algal growth in the surface layer, which in turn may explain the subsequent high peak in hypolimnetic nitrate and dissolved phosphorus.

An increase in the winter mixing period since 1995 may also have resulted in the observed increase in annual minimum dissolved oxygen concentrations. With an earlier onset of the winter mixing the decline in dissolved oxygen by consumption during the stratified season stops earlier, resulting in less extreme minima in dissolved oxygen concentrations.

5 Acknowledgements

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Last but not least, I am indebted to Max Gibbs who over the past year has generously shared with me his knowledge and experience gained in 22 years of managing the Lake Taupo Monitoring Project.

6 Glossary of abbreviations and terms

BOD	Biochemical Oxygen Demand: the rate of oxygen consumption associated with biological decomposition and chemical processes and in the water column.
VHOD	Volumetric Hypolimnetic Oxygen Demand: the net rate of oxygen loss associated with biological, chemical and physical processes in the hypolimnion of a lake in the absence of a temperature change.
Phytoplankton	Microscopic free-floating aquatic plants (algae).
Cyanobacteria	Blue-green algae. These are potentially toxic. They can adjust their depth in the water column using small gas bladders (gas vacuoles), and some species can use (i.e., fix) atmospheric nitrogen for growth when nutrient nitrogen in the water column is depleted.
Zooplankton	Small to microscopic free-swimming aquatic animals which graze on phytoplankton or smaller zooplankton.
Biomass	The living mass of the phytoplankton or zooplankton populations.
Thermal stratification	Separation of a water column into two layers by temperature – warmer water on top.
Thermocline	The boundary zone or temperature gradient between the two layers in a thermally stratified water column.
Epilimnion	The upper water column in a thermally stratified water column.
Hypolimnion	The lower water column in a thermally stratified water column.
Metalimnion	The thermocline zone — of variable thickness.
Euphotic zone	The upper water column in which there is sufficient light for photosynthesis and hence phytoplankton growth.
Euphotic depth	Lower limit of phytoplankton growth where light levels are 1% of surface irradiance.
Hydrothermal eruption	Sudden release of superheated water from volcanic vents in the bed of the lake. The source Is most likely infiltrating lake water heated by hot rocks. The heated water includes dissolved salts leached from the rocks and sediment.
Nutrients	Essential dissolved inorganic nitrogen and phosphorus compounds which can be used directly by plants for growth.
Ammoniacal nitrogen	Sum of ammonium ion (NH_4^+) plus free (unionised) ammonia (NH_3). Some amines (NH_2^-) may be included as interference during analysis. Symbol, NH_4-N.
Nitrate nitrogen	Used in this report as the sum of nitrate (NO_3^-) plus nitrite (NO_2^-). Symbol, NO_3-N.

DIN	Dissolved Inorganic Nitrogen: the sum of NH_4-N + NO_3-N.
DON	Dissolved Organic Nitrogen: the soluble nitrogen other than DIN.
PN	Particulate Nitrogen: includes phytoplankton and other detritus.
TN	Total Nitrogen: Sum of DIN + DON + PN.
NO_x	Gaseous oxides of nitrogen, including N_2O, NO, NO_2.

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Appendix 1. Site map, sampling strategy and methods

Site map

Lake monitoring sites were originally established using land-based markers (Figure 29). These have now been defined using GPS and corrected for curvature using WGS84 convention.

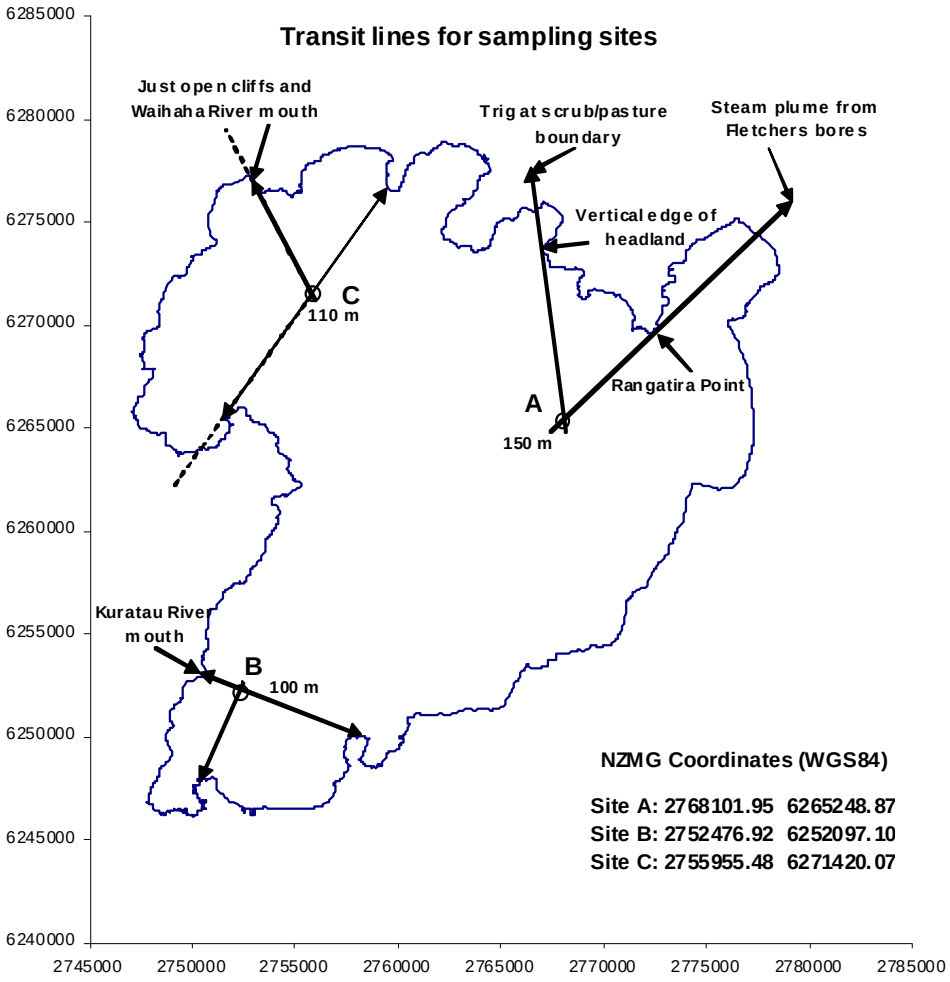

Figure 29: Site map of Lake Taupo. Site map of Lake Taupo showing location of the routine monitoring site at mid lake (A). Two additional sites at Kuratau Basin (B) and the Western Bays (C) were sampled between January 2002 and December 2004 inclusive. Data from those sites have been retained with the Site A data presented in the appendices. Map coordinates are in NZ Map Grid with WGS84 correction. Lat. Long WGS 84 corrected co-ordinates of "Site A" are 38° 46'.810 S; 175° 58'.440 E.

The following section has been copied from Gibbs 1995, and was modified after 1998.

Methods

The sampling site was selected in the central basin of Lake Taupo (Site Map) with a water depth of about 160 m. This site is more than 5 km from the nearest land.

The calculation of VHOD requires two measurements each year far enough apart in time for a measurable change to occur in the DO concentrations in the hypolimnion of the lake. Details of the procedure and limitations of this measurement are described by Vant (1987). For the monitoring of Lake Taupo, which mixes briefly in winter between July and August, the initial sampling time was selected to be in October, to give sufficient time for thermal stratification to establish a stable hypolimnion. The final sampling time was selected to be in April, before lake cooling causes the downward movement of the thermocline which precedes the winter mixing.

At each of these biannual samplings, a detailed profile of DO and temperature was measured. Prior to 1998, measurements were made at 1 m depth intervals through the full depth of the water column using an in situ recording Applied Microsystems STD-12 profiler fitted with a Royce DO sensor, and compared with manual measurements of DO and temperature made at 10 m depth intervals from the surface to the bottom of the lake using a Yellow Springs Instrument (YSI) model 58 dissolved oxygen meter fitted with a stirred Model 5739 probe on a 160 m cable. Subsequent to 1998, a Richard Brancker Research (RBR) model TD410 conductivity-temperature-depth (CTD) profiler fitted with a stirred YSI model 5739 DO sensor was used. In January 2002, the TD410 CTD profiler was upgraded to an RBR model XR420f freshwater CTD profiler fitted with the YSI model 5739 DO sensor and a Seapoint chlorophyll fluorescence probe. The DO sensor was calibrated regularly by NIWA, Rotorua staff and chlorophyll fluorescence was converted to chlorophyll *a* from extracted chlorophyll *a* analyses of water samples collected beside the profiler.

In January 2008, the XR420f profiler was upgraded to a RBR model XR620f freshwater profiler/logger with improved sensitivity. The new profiler is fitted with a Sea Point chlorophyll fluorescence probe and a Li-Cor underwater photosynthetically active radiance (PAR) sensor to measure in situ light levels and light extinction (Kd) associated with the vertical distribution of algal biomass within the lake water column. In the new system the YSI dissolved oxygen (DO) sensor was replaced with an Oxyguard DO sensor, with a temperature sensor, fitted to a separate RBR logger attached to the profiling frame.

Cross-calibration between the two profilers confirmed the quality of the data and the XR420f has been retained as a back-up.

The following parameters were also measured (or calculated from component parameters) as profiles from water samples collected using a van Dorn water sampling bottle starting at 1 m and then at 10 m intervals from 10 m to the bottom of the lake:

DO, chlorophyll *a*, dissolved reactive phosphorus (DRP), dissolved organic phosphorus (DOP), particulate phosphorus (PP), total phosphorus (TP), nitrate+nitrite nitrogen (NO_3-N)*, ammoniacal nitrogen (NH_4-N), dissolved organic nitrogen (DON), particulate nitrogen (PN), total nitrogen (TN), urea nitrogen (Urea-N), total suspended solids (SS), volatile suspended solids (VSS), particulate carbon (PC) and dissolved organic carbon (DOC). (* Little, if any nitrite is ever found in the Lake Taupo water column, hence the use of NO_3-N in the report).

Note: TN and TP values are the summation of all other N and P components, respectively, excluding Urea-N which is part of the DON component.

Additional parameters measured but not as complete profiles were:

Water clarity (by Secchi disc depth) and algal species composition and abundance on water samples from 1, 10, 50, 100, and 150 m.

Determinations on the water samples were made with the standard methods routinely used for freshwater analysis by NIWA on a Lachat FIA flow injection analyser.

Algal species composition and abundance were obtained by settling a measured volume of sample (up to 100 mL) in Utermöhl tubes and counting on an inverted microscope. Biovolume was estimated from cell volume tables calculated from the cell dimensions of each species. Dominance was estimated from relative biovolumes with the highest biovolume assigned dominance 1 as most common and the lowest biovolume assigned the dominance 10 as rare. Professional judgement was used to relate dominance between samplings.

Since 2007, dominance is no longer used and the algal data are reported in cell counts and biovolume.

Data for the long term monitoring programme were scheduled to be collected from the mid-lake sampling station at 2 weekly intervals. The practicality of achieving this target was limited by the weather and in reality data were generally collected at about 2-3 weekly intervals. Parameters measured were:

DO and temperature profiles at 1 m depth intervals to the bottom of the lake by RBR profiler, water clarity as Secchi disc depth, and a 10 m tube water sample was collected for measurement of chlorophyll *a*, NO_3-N, NH_4-N, , DRP, TDN, TDP, PP, PN, PC, and algal species dominance. TN and TP were calculated as the sum of their components. Chlorophyll fluorescence, conductivity, and PAR data from the profiler are archived but not routinely included in this report.

From 2000, near-bottom water samples from 150 m were collected using a van Dorn water sampling bottle and analysed for DRP, NO_3-N, and NH_4-N.

Data handling and less than detection limit values

All data in this report have been processed and manipulated on Excel spreadsheets. For the calculation of annual means and long term trends, results below the detection limit (<DL) were replaced by a value of half of the detection limit. These changes were not made in the data sheets in de appendices.

Appendix 2. The calculation of VHOD rates

From Gibbs 1995.

Method of calculation

The following is the method used to calculate the net VHOD rate for Lake Taupo.

Requirements: Microsoft Excel spreadsheet or equivalent.

The thermocline in Lake Taupo is usually at about 20 to 40 m, and the water column is almost isothermal below 70 m. The net VHOD rate calculation only uses oxygen data from below 70 m.

To calculate the mean oxygen concentration in the water column below 70 m, the DO concentration at each 10 m depth increment is multiplied by the volume of each 10 m segment, summed, and the sum divided by the total volume below 70 m depth. This approach assumes the lake to be horizontally well mixed and vertical mixing during summer to be minimal. Historical data from multiple sites would suggest that these are a reasonable assumptions.

The slice volumes (hypsographic volumes) for Lake Taupo have been calculated for 10 m thick layers centred on the 5 m point of each slice i.e., 75, 85, 95, 105 m etc. The DO measurements are made at 10 m intervals i.e., 70, 80, 90, 100, 110 m etc.

The mass of oxygen in each 10 m slice is the average of the DO concentration at the top and bottom of a slice multiplied by the slice volume. i.e., for the 70 - 80 m slice the calculation is:-

$$DO\ Mass_{70\text{-}80m} = ((DO_{70m} + DO_{80m}) \div 2) \times Volume_{70\text{-}80m}$$

For each profile date:

Compute the DO mass for each 10 m slice between 70 m and 150 m and sum the results as the total mass of DO in the hypolimnion below 70 m. Sum the slice volumes below 70 m as the total volume of the hypolimnion below 70 m.

The volume weighted mean DO concentration is the total DO mass divided by the total volume.

Use the Julian day number to construct a time series of volume weighted mean DO concentrations over the stratified period and use the Excel regression analysis tool to obtain the $y = ax + b$ straight line fit for these data.

As the DO data are in g m^{-3}, the value of the slope ‘a' is in g m^{-3} d^{-1}. Multiply 'a' by 1000 to get the net VHOD rate in mg m^{-3} d^{-1}. The negative sign from the regression equation indicates a loss rate.

The hypsographic volumes and upper surface areas of the 10 m slices through the whole depth of Lake Taupo are listed at the end of this section.

Table 2: Lake Taupo Hypsographic Data used in the Net VHOD RATE calculation. .

Slice depths (m)	Volume of slice (km^3)	Upper surface area of slice (km^2)
0 - 10	5.849359	600
10 - 20	5.599702	570
20 - 30	5.459951	550
30 - 40	5.359888	542
40 - 50	5.288266	530
50 - 60	5.150538	528
60 - 70	4.899510	502
70 - 80	4.619076	478
80 - 90	4.278738	446
90 - 100	3.847292	410
100 - 110	3.006616	360
110 - 120	1.730549	245
120 - 130	0.837468	110
130 - 140	0.394439	60
140 - 150	0.073333	22
150 -	0	0

Appendix 3. Temperature and dissolved oxygen data

Includes accumulated data since 1994.

* represents data missing or invalid.

For completeness, additional data from Kuratau Basin (Site B) and Western Bays (Site C) collected for the period between January 2002 and December 2004 are included as separate sheets following the mid-lake data from Site A for those years.

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2014-2015

Mid-Lake site A

Temperature

Date	1/07/2014	21/07/2014	26/08/2014	9/09/2014	8/10/2014	20/10/2014	5/11/2014	25/11/2014	17/12/2014	14/01/2015	29/01/2015	12/02/2015	26/02/2015	9/03/2015	25/03/2015	21/04/2015	11/05/2015	27/05/2015	18/06/2015	2/07/2015
Depth (m)																				
0	12.86	11.76	11.48	12.06	11.15	12.91	13.34	14.63	15.43	20.35	20.91	19.47	20.00	20.08	19.11	17.15	15.63	13.79	12.34	11.59
10	12.87	11.51	11.08	11.17	11.18	12.76	12.83	13.58	15.41	20.17	20.87	19.32	20.00	19.64	18.94	17.07	15.66	13.69	12.35	11.61
20	12.87	11.50	11.07	11.12	11.18	11.44	12.55	13.44	15.33	16.18	17.05	18.85	18.09	19.61	18.92	17.03	15.65	13.68	12.35	11.61
30	12.88	11.50	11.06	11.03	11.18	11.27	12.46	13.32	13.91	13.82	14.27	14.16	14.92	14.72	15.30	15.20	15.66	13.67	12.35	11.60
40	12.88	11.50	11.05	10.99	11.17	11.23	12.06	12.49	13.02	12.60	12.67	12.73	13.41	12.84	12.98	12.80	15.63	13.67	12.35	11.58
50	12.88	11.49	11.05	10.99	11.18	11.20	11.82	11.58	11.92	11.86	11.80	11.99	12.32	11.75	11.88	11.78	12.19	13.65	12.35	11.57
60	12.85	11.46	11.05	10.99	11.17	11.20	11.57	11.31	11.37	11.38	11.44	11.59	11.55	11.43	11.52	11.29	11.52	13.57	12.35	11.57
70	11.66	11.42	11.05	10.98	11.16	11.20	11.38	11.25	11.22	11.25	11.30	11.40	11.44	11.26	11.32	11.11	11.15	11.77	12.15	11.55
80	11.53	11.39	11.05	10.98	11.15	11.19	11.25	11.20	11.18	11.19	11.25	11.27	11.29	11.23	11.29	11.01	11.04	11.48	11.20	11.50
90	11.44	11.37	11.04	10.97	11.14	11.18	11.18	11.16	11.14	11.16	11.19	11.23	11.22	11.20	11.24	10.97	10.98	11.36	11.12	11.43
100	11.40	11.36	11.04	10.97	11.13	11.18	11.14	11.14	11.12	11.13	11.16	11.20	11.19	11.19	11.24	10.94	10.95	11.23	11.05	11.38
110	11.37	11.36	11.04	10.97	11.13	11.17	11.13	11.11	11.10	11.12	11.15	11.17	11.17	11.18	11.20	10.91	10.93	11.08	11.02	11.36
120	11.36	11.35	11.04	10.96	11.11	11.17	11.12	11.09	11.10	11.11	11.13	11.13	11.15	11.18	11.19	10.90	10.93	11.03	11.00	11.25
130		11.35	11.04	10.95	11.09	11.14		11.07	11.09	11.11	11.11	11.12		11.16	11.15	10.89	10.91	11.00	10.99	11.12
140		11.35	11.04	10.95	11.05	11.10		11.06	11.09	11.10	11.11	11.11		11.15	11.15	10.88	10.90	10.98		11.05
150		11.35	11.03		11.00			11.05	11.08						11.15			10.95		11.01

Dissolved Oxygen (g m^{-3})

0	10.55	10.82	10.81	10.75	10.93	10.48	10.41	10.13	9.92	9.04	8.86	9.15	8.97	9.02	9.18	9.61	9.96	10.37	10.72	10.78
10	10.28	10.62	11.07	11.40	10.82	10.41	10.19	10.16	9.86	9.11	8.81	9.14	9.02	9.06	9.15	9.35	9.85	10.14	10.46	10.57
20	10.26	10.47	11.25	10.67	10.83	10.50	10.34	10.22	9.91	9.61	9.42	9.28	9.27	9.05	9.08	9.52	9.95	10.28	10.59	10.72
30	10.15	10.25	11.23	10.43	10.74	10.30	10.27	10.17	9.80	9.67	9.60	9.23	9.46	9.30	9.24	9.62	9.97	10.31	10.72	10.77
40	10.04	10.16	11.12	10.21	10.63	10.04	10.11	9.90	9.85	9.44	9.39	9.57	9.37	9.32	9.39	10.03	9.92	10.27	10.66	10.79
50	10.02	9.99	10.90	10.09	10.60	9.98	10.06	9.90	9.63	9.35	9.21	9.44	9.17	9.07	9.25	9.77	9.88	10.28	10.67	10.84
60	9.96	9.54	10.83	10.03	10.60	9.92	10.00	9.79	9.38	9.07	8.93	9.29	8.60	8.61	8.73	9.29	9.25	10.16	10.60	10.75
70	8.67	8.96	10.72	10.05	10.56	9.92	9.88	9.77	9.33	9.02	8.80	9.22	8.49	8.44	8.48	9.14	9.07	9.62	10.54	10.71
80	8.38	8.40	10.61	10.03	10.52	9.89	9.81	9.69	9.19	8.96	8.67	9.01	8.38	8.33	8.02	8.98	8.71	9.32	9.19	10.61
90	8.26	8.29	10.54	10.01	10.51	9.87	9.69	9.58	9.12	8.89	8.66	8.94	8.33	8.25	7.94	8.73	8.63	9.15	9.07	10.60
100	8.19	8.08	10.50	9.96	10.47	9.86	9.57	9.39	9.03	8.70	8.50	8.90	8.28	7.94	7.71	8.55	8.29	8.89	8.76	10.30
110	8.10	8.04	10.46	9.98	10.41	9.85	9.52	9.27	8.98	8.60	8.42	8.93	8.24	7.87	7.71	8.48	8.09	8.61	8.61	10.17
120	8.04	7.94	10.42	9.87	10.39	9.82	9.46	9.15	8.89	8.24	8.37	8.80	7.97	7.69	7.73	8.35	7.77	8.43	8.41	9.61
130		7.89	10.41	9.86	10.31	9.80		9.11	8.78	8.10	8.18	8.67		7.69	7.91	7.45	8.04	8.31	8.23	8.89
140		7.74	10.37	9.86	10.15	9.67		8.87	8.61	7.90	7.68	8.17		7.38	7.37	7.29	7.70	8.19		8.52
150		7.71	10.31		10.04			8.72	8.43						7.10			8.04		8.11
	Drift angle																			

Secchi depth

(m)	12.75	15.5	11	11.25	14	13	15	12	15	16	17.25	17	18	na	18	17.25	13	12	16.25	14.25

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2013-2014

Mid-Lake site A for the period starting 22 July 2013

Temperature

Date	22/07/2013	6/08/2013	21/08/2013	3/09/2013	18/09/2013	2/10/2013	21/10/2013	7/11/2013	20/11/2013	2/12/2013	8/01/2014	28/01/2014	12/02/2014	25/02/2014	12/03/2014	27/03/2014	9/04/2014	23/04/2014	8/05/2014	20/05/2014	5/06/2014	19/06/2014	1/07/2014	21/07/2014
Depth (m)																								
0	11.50	11.54	11.21	11.20	11.56	11.73	12.81	13.53	16.69	17.41	18.54	18.06	18.55	19.16	19.05	18.23	18.60	17.41	16.32	15.41	14.01	13.38	12.86	11.76
10	11.48	11.36	11.21	11.18	11.20	11.70	12.65	13.42	14.77	17.11	18.43	18.02	18.54	19.17	18.56	18.25	18.53	17.36	16.32	15.40	14.06	13.39	12.87	11.51
20	11.48	11.33	11.21	11.18	11.18	11.54	12.41	13.12	13.64	17.05	17.85	17.69	18.40	18.99	18.26	18.25	18.52	17.35	16.32	15.40	14.06	13.39	12.87	11.50
30	11.47	11.32	11.21	11.18	11.18	11.52	12.14	12.23	12.52	12.61	13.39	14.95	15.41	15.82	15.81	17.25	17.76	17.35	16.32	15.39	14.06	13.40	12.88	11.50
40	11.47	11.31	11.21	11.15	11.18	11.48	12.05	11.81	11.88	12.25	12.11	12.00	12.37	12.55	12.62	13.01	12.99	13.19	15.86	15.35	14.03	13.39	12.88	11.50
50	11.47	11.30	11.19	11.15	11.18	11.47	11.94	11.55	11.67	11.73	11.71	11.65	11.76	11.87	11.80	11.97	11.89	11.98	12.16	12.35	12.45	12.17	12.88	11.49
60	11.42	11.29	11.19	11.15	11.17	11.45	11.85	11.42	11.56	11.54	11.56	11.54	11.56	11.66	11.57	11.72	11.56	11.63	11.68	11.78	11.68	11.56	12.85	11.46
70	11.37	11.28	11.19	11.15	11.17	11.37	11.59	11.30	11.39	11.45	11.44	11.42	11.44	11.51	11.47	11.54	11.46	11.49	11.53	11.54	11.48	11.46	11.66	11.42
80	11.35	11.28	11.19	11.15	11.17	11.20	11.32	11.23	11.35	11.40	11.38	11.35	11.36	11.44	11.41	11.43	11.41	11.43	11.44	11.44	11.42	11.41	11.53	11.39
90	11.28	11.28	11.18	11.15	11.16	11.17	11.24	11.19	11.28	11.31	11.32	11.30	11.33	11.36	11.37	11.38	11.35	11.37	11.38	11.39	11.39	11.38	11.44	11.37
100	11.26	11.25	11.17	11.15	11.16	11.16	11.21	11.17	11.27	11.24	11.28	11.27	11.31	11.32	11.33	11.36	11.33	11.34	11.36	11.36	11.35	11.35	11.40	11.36
110	11.22	11.21	11.17	11.15	11.15	11.15	11.17	11.15	11.26	11.20	11.23	11.25	11.29	11.28	11.31	11.33	11.31	11.31	11.32	11.33	11.34	11.34	11.37	11.36
120	11.20	11.18	11.17	11.16	11.15	11.15	11.16	11.14	11.20	11.18	11.21	11.24	11.27	11.26	11.28	11.30	11.30	11.29	11.31	11.31	11.32	11.33	11.36	11.35
130	11.18	11.16	11.17	11.15	11.14	11.15	11.15	11.13	11.19	11.16	11.19	11.22	11.26	11.24	11.26	11.28	11.27	11.28	11.29	11.30	11.31	11.31		11.35
140	11.11	11.16	11.17	11.16	11.14	11.14	11.14	11.12	11.16	11.15	11.19	11.20	11.23	11.23	11.26	11.27	11.26	11.27	11.28	11.29	11.30			11.35
150	11.11	11.16	11.17	11.15	11.13	11.13	11.14	11.12	11.15	11.15	11.19	11.20	11.22	11.23	11.25	11.26	11.26	11.27	11.28	11.28	11.29			11.35

Dissolved Oxygen (g m^{-3})

Depth (m)																								
0	10.93	10.80	10.67	10.90	10.83	10.91	10.55	10.31	9.79	9.53	9.39	9.31	9.25	9.20	9.25	9.31	9.29	9.56	9.73	9.92	10.23	10.33	10.55	10.82
10	11.43	10.66	11.18	11.15	11.27	11.40	10.71	10.26	9.68	9.16	9.22	8.79	9.17	9.07	9.12	9.03	9.20	9.49	9.74	9.72	9.89	10.19	10.28	10.62
20	11.11	10.19	10.68	10.97	11.07	11.11	10.35	10.13	9.76	9.03	8.93	8.51	9.05	9.02	9.12	9.01	9.20	9.48	9.84	9.64	9.83	10.13	10.26	10.47
30	11.05	9.91	10.78	10.90	10.89	11.01	10.08	9.87	9.60	8.90	9.35	8.14	8.58	8.36	8.68	8.56	9.01	9.34	9.76	9.54	9.78	10.06	10.15	10.25
40	11.32	8.91	11.01	10.99	10.91	10.87	10.15	9.70	9.44	8.91	9.28	9.00	9.01	8.72	8.78	8.59	8.54	8.76	9.47	9.43	9.71	9.94	10.04	10.16
50	11.61	8.50	11.23	10.88	10.87	10.82	10.12	9.68	9.22	8.69	9.29	8.98	8.99	8.59	8.56	8.46	8.38	8.73	8.98	8.77	9.18	9.55	10.02	9.99
60	11.72	7.49	11.44	11.00	10.89	10.91	10.15	9.46	9.18	8.65	9.16	8.93	9.09	8.46	8.35	8.22	8.31	8.63	8.90	8.54	8.38	8.76	9.96	9.54
70	11.61	7.13	11.32	11.00	10.74	10.84	9.89	9.29	8.94	8.55	9.32	9.04	9.02	8.38	8.27	8.13	8.25	8.57	8.85	8.43	8.29	8.58	8.67	8.96
80	11.68	6.07	11.00	10.88	10.48	10.62	9.62	9.23	8.87	8.48	9.08	8.82	8.80	8.28	8.23	8.05	8.18	8.45	8.67	8.30	8.19	8.55	8.38	8.40
90	11.44	5.39	10.64	10.84	10.45	10.44	9.18	9.00	8.65	8.45	8.83	8.35	8.74	8.25	8.14	8.03	8.10	8.40	8.61	8.21	8.08	8.45	8.26	8.29
100	11.21	5.07	10.42	10.61	10.16	10.28	8.84	8.87	8.58	8.44	8.49	8.17	8.55	8.10	8.16	7.76	7.97	8.24	8.45	8.10	7.96	8.30	8.19	8.08
110	10.81	4.64	10.03	10.56	10.05	9.97	8.70	8.67	8.21	8.39	8.19	7.82	8.47	8.10	7.99	7.79	7.88	8.12	8.19	7.86	7.65	8.00	8.10	8.04
120	10.44	4.11	9.78	10.40	9.73	9.65	8.43	8.47	8.28	8.26	8.04	7.55	8.22	7.83	7.83	7.81	7.78	7.96	7.95	7.70	7.49	7.92	8.04	7.94
130	10.36		9.71	10.05	9.56	9.45	8.29	8.22	8.18	8.15	7.59	7.34	8.13	7.70	7.75	7.65	7.58	7.85	7.81	7.54	7.33	7.75		7.89
140	9.99		9.58	9.75	9.20	9.02	7.93	8.09	8.02	7.95	7.49	7.04	7.71	7.41	7.46	7.32	7.32	7.63	7.58	7.17	7.21			7.74
150	9.02		9.57	9.49	8.97	8.48	7.63	8.02	7.60	7.62	7.35	6.53	7.46	6.98	6.73	7.13	6.73	7.10	7.50	7.16	7.07			7.71
	O-ring not released																					Drift angle	Drift angle	

Secchi depth

(m)	14	12	12.8	11.5	12	12	11	10	9	10	12	13	13.5	15	18	14.5	16.5	14.8	17.7	16	12	14	12.75	15.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2012-2013

Mid-Lake site A for the period starting 1 August 2012

Temperature

Date	1/08/2012	17/08/2012	29/08/2012	20/09/2012	4/10/2012	24/10/2012	8/11/2012	22/11/2012	6/12/2012	19/12/2012	23/01/2013	7/02/2013	21/02/2013	6/03/2013	20/03/2013	4/04/2013	22/04/2013	7/05/2013	23/05/2013	6/06/2013	19/06/2013	22/07/2013
Depth (m)			no profile																			
0	11.15	11.25		11.17	11.45	12.35	13.45	16.40	14.97	17.75	19.02	18.83	20.41	20.01	19.52	19.58	17.49	16.50	15.25	13.99	13.37	11.50
10	11.17	11.07		10.91	11.45	11.59	13.23	14.06	14.83	17.35	18.79	18.82	20.24	20.01	19.55	19.48	17.50	16.47	15.29	14.00	13.37	11.48
20	11.17	11.02		10.71	11.45	11.55	12.95	13.73	14.34	15.74	17.40	18.11	19.42	19.99	19.56	19.45	17.49	16.46	15.32	14.00	13.38	11.48
30	11.18	11.01		10.70	11.44	11.52	12.40	13.10	13.80	14.16	14.32	15.66	16.05	15.73	14.81	15.96	15.87	16.07	15.34	14.00	13.38	11.47
40	11.19	10.99		10.70	11.13	11.51	11.75	11.93	12.22	12.30	12.25	13.20	12.63	12.98	12.48	12.95	12.81	12.47	14.85	13.88	13.38	11.47
50	11.19	10.99		10.68	10.94	11.49	11.47	11.60	11.53	11.65	11.67	12.02	12.02	11.98	11.69	11.88	11.79	11.69	12.03	11.72	12.12	11.47
60	11.19	10.98		10.68	10.92	11.43	11.30	11.38	11.27	11.41	11.45	11.46	11.64	11.48	11.42	11.52	11.45	11.42	11.50	11.47	11.41	11.42
70	11.19	10.97		10.67	10.92	11.37	11.13	11.22	11.19	11.28	11.32	11.29	11.37	11.33	11.22	11.32	11.28	11.29	11.25	11.31	11.24	11.37
80	11.20	10.96		10.66	10.91	11.34	11.04	11.17	11.11	11.14	11.22	11.18	11.28	11.21	11.15	11.21	11.18	11.18	11.17	11.20	11.15	11.35
90	11.20	10.95		10.64	10.90	11.29	10.99	11.05	11.07	11.06	11.15	11.08	11.15	11.13	11.10	11.13	11.12	11.13	11.12	11.13	11.11	11.28
100	11.19	10.95		10.63	10.88	11.25	10.95	11.04	11.04	11.03	11.08	11.08	11.11	11.05	11.07	11.09	11.08	11.09	11.09	11.09	11.07	11.26
110	11.17	10.94		10.61	10.86	11.18	10.91	10.97	11.01	11.00	11.04	11.05	11.06	11.01	11.03	11.06	11.05	11.06	11.06	11.06	11.06	11.22
120	11.16	10.94		10.60	10.82	11.10	10.89	10.95	10.96	10.98	11.01	11.04	11.02	11.00	11.00	11.05	11.03	11.04	11.04	11.03	11.05	11.20
130	11.16	10.94		10.60	10.82	11.00	10.86	10.92	10.92	10.96	10.98	11.02	10.98	10.98	10.99	11.03	11.02	11.03	11.02	11.02	11.04	11.18
140	11.16	10.94		10.60	10.82	10.97	10.85	10.90	10.90	10.94	10.96	10.98	10.97	10.97	10.99	11.02	11.01	11.01	11.01	11.01	11.03	11.11
150	11.16	10.94		10.60	10.82	10.91	10.84	10.90	10.89	10.93	10.94	10.97	10.96	10.96	10.98	11.00	11.00	11.00	11.00	11.00	11.03	11.11

Dissolved Oxygen (g m^{-3})

Depth (m)					4/10/2012	24/10/2012	8/11/2012	22/11/2012	6/12/2012	19/12/2012	23/01/2013	7/02/2013	21/02/2013	6/03/2013	20/03/2013	4/04/2013	22/04/2013	7/05/2013	23/05/2013	6/06/2013	19/06/2013	22/07/2013
0	11.03	10.90		11.00	11.20	10.68	10.40	9.56	9.50	9.14	9.05	8.76	8.73	8.76	10.61	9.11	9.05	9.70	9.70	10.27	10.14	10.93
10	11.19	11.09		11.03	11.24	10.81	10.57	9.88	9.64	9.29	9.17	8.86	8.87	8.73	12.43	13.37	9.08	9.71	9.72	10.26	10.15	11.43
20	11.13	10.77		11.06	11.14	10.66	10.53	9.79	9.68	9.56	9.52	9.14	9.04	8.62	9.69	9.73	9.00	9.68	9.67	10.17	10.16	11.11
30	11.21	10.77		11.07	11.18	10.70	10.68	9.85	9.75	9.79	10.31	9.59	9.92	9.59	9.72	10.07	9.11	9.63	9.64	10.17	10.18	11.05
40	11.10	10.44		11.10	10.93	10.56	10.53	9.60	9.75	9.79	9.74	9.56	9.62	9.63	9.34	9.90	9.05	9.45	9.62	10.15	10.19	11.32
50	11.01	10.24		11.12	10.57	10.60	10.49	9.59	9.46	9.28	9.57	9.22	9.40	9.23	8.97	9.38	8.73	9.02	9.04	9.38	10.17	11.61
60	11.11	10.18		11.17	10.44	10.37	9.99	9.19	8.93	9.01	9.29	8.68	8.96	8.92	8.80	9.08	8.64	8.66	8.92	9.11	9.38	11.72
70	11.11	10.04		11.18	10.43	10.43	9.91	9.02	8.84	8.90	8.87	8.52	8.78	8.67	8.91	8.74	8.49	8.76	8.75	8.99	9.11	11.61
80	11.05	10.22		11.21	10.37	10.34	9.57	8.87	8.78	8.73	8.86	8.25	8.60	8.22	8.91	8.71	8.39	8.80	8.54	8.84	8.99	11.68
90	10.79	10.22		11.22	10.36	10.31	9.55	8.87	8.70	8.62	8.37	8.21	8.38	8.00	8.72	8.28	8.24	8.56	8.34	8.60	8.84	11.44
100	10.02	10.15		11.25	10.27	10.19	9.40	8.50	8.49	8.44	8.40	7.91	8.17	8.14	8.82	8.06	7.93	8.38	8.10	8.32	8.60	11.21
110	9.41	10.16		11.26	10.19	10.12	9.44	8.68	8.38	8.38	8.27	7.89	8.08	7.97	8.73	7.86	7.71	7.92	8.02	7.89	8.32	10.81
120	9.23	10.02		11.30	10.34	9.96	9.34	8.59	8.51	8.25	8.36	7.78	7.77	7.74	8.13	7.73	7.40	7.46	7.79	7.71	7.89	10.44
130	9.10	9.98		11.32	10.30	9.95	9.34	8.61	8.53	8.20	8.22	7.74	7.75	7.74		7.69	7.36	7.19	7.53	7.64	7.71	10.36
140	9.10	9.98		11.34	10.26	9.75	9.10	8.28	8.35	7.87	7.93	7.84	7.40	7.74		7.57	6.94	7.16	7.46	7.56	7.64	9.99
150	9.05	9.98		11.41	10.26	9.51	8.91	8.21	8.07	7.72	7.39	7.41	7.08	7.74		7.23	6.81	7.11	7.35	7.53	7.56	9.02
															Probe error							

Secchi depth

(m)	17	14		13	12.5	13.6	17	18	19	19	15.8	15	19	21	14	18	14.7	14.25	15	14.5	15	14

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2011-2012

Mid-Lake site A for the period starting 9 August 2011

Temperature

Date	9/08/2011	24/08/2011	7/09/2011	28/09/2011	26/10/2011	8/11/2011	22/11/2011	8/12/2011	22/12/2011	12/01/2012	26/01/2012	16/02/2012	7/03/2012	10/04/2012	7/05/2012	30/05/2012	14/06/2012	2/07/2012	18/07/2012	1/08/2012	17/08/2012	29/08/2012	20/09/2012
Depth (m)												no profile										no profile	
0	11.07	10.88	11.09	11.02	13.02	14.12	14.59	16.81	18.23	18.91	19.02		18.17	16.64	15.07	13.41	12.64	11.64	11.44	11.15	11.25		11.17
10	10.95	10.80	10.95	11.02	12.80	13.80	14.55	16.26	16.67	18.64	19.01		17.56	16.47	15.07	13.47	12.68	11.62	11.28	11.17	11.07		10.91
20	10.94	10.75	10.88	11.01	12.31	13.37	14.52	14.83	15.55	16.68	18.30		17.26	16.42	15.07	13.48	12.68	11.62	11.27	11.17	11.02		10.71
30	10.93	10.74	10.76	10.96	11.82	13.00	14.20	13.56	13.57	14.81	16.51		16.24	16.21	15.07	13.50	12.67	11.61	11.26	11.18	11.01		10.70
40	10.94	10.73	10.76	10.84	11.05	11.67	12.15	12.25	12.35	12.58	12.21		12.77	14.24	15.03	13.49	12.66	11.61	11.26	11.19	10.99		10.70
50	10.94	10.72	10.75	10.81	10.92	11.15	11.36	11.54	11.56	11.89	12.13		11.82	11.95	12.50	11.95	12.67	11.61	11.26	11.19	10.99		10.68
60	10.94	10.71	10.75	10.80	10.86	10.92	11.00	11.11	11.15	11.31	11.17		11.30	11.24	11.65	11.43	11.61	11.60	11.26	11.19	10.98		10.68
70	10.94	10.71	10.75	10.79	10.81	10.85	10.89	10.96	11.04	11.07	11.14		11.12	11.06	11.23	11.17	11.19	11.59	11.25	11.19	10.97		10.67
80	10.94	10.71	10.75	10.78	10.79	10.83	10.86	10.91	11.01	10.96	10.96		11.02	10.98	11.09	11.02	11.02	11.24	11.18	11.20	10.96		10.66
90	10.94	10.71	10.75	10.77	10.77	10.80	10.83	10.85	10.93	10.92	10.93		10.96	10.91	11.01	10.97	10.97	11.00	11.04	11.20	10.95		10.64
100	10.93	10.71	10.75	10.76	10.75	10.78	10.82	10.85	10.95	10.89	10.89		10.93	10.89	10.97	10.93	10.95	10.99	10.97	11.19	10.95		10.63
110	10.93	10.71	10.75	10.75	10.75	10.76	10.80	10.81	10.88	10.87	10.87		10.89	10.87	10.92	10.89	10.95	10.95	10.94	11.17	10.94		10.61
120	10.93	10.70	10.74	10.74	10.73	10.75	10.79	10.81	10.88	10.85	10.86		10.87	10.84	10.89	10.87	10.92	10.91	10.92	11.16	10.94		10.60
130	10.93	10.70	10.73	10.73	10.72	10.74	10.78	10.78	10.84	10.83	10.83		10.84	10.82	10.87	10.85	10.90	10.89	10.91	11.16	10.94		10.60
140	10.92	10.70	10.72	10.72	10.72	10.73	10.77	10.77	10.85	10.82	10.83		10.84	10.81	10.86	10.84	10.88	10.88	10.90	11.16	10.94		10.60
150	10.92	10.70	10.71	10.72	10.72	10.72	10.76	10.76	10.82	10.81	10.83		10.83	10.81	10.85	10.83	10.86	10.88	10.89	11.16	10.94		10.60

Dissolved Oxygen (g m^{-3})

Depth (m)																							
0	10.49	10.58	10.50	10.57	10.55	10.73	10.33	9.97	9.38	9.29	9.26		9.40	9.70	10.07	10.40	10.60	10.90	10.90	11.03	10.90		11.00
10	10.62	10.59	10.64	10.56	11.22	11.45	11.18	11.11	10.16	9.95	9.21		10.23	9.91	10.00	11.23	11.28	10.98	11.12	11.19	11.09		11.03
20	10.53	10.45	10.62	10.52	11.91	11.69	11.66	11.95	10.92	11.21	9.56		10.24	9.88	9.40	11.49	10.63	10.93	10.83	11.13	10.77		11.06
30	10.40	10.32	10.40	10.50	12.08	11.55	11.57	11.85	11.26	11.50	9.76		10.45	9.83	9.22	11.59	10.78	10.87	10.91	11.21	10.77		11.07
40	10.32	10.23	10.34	10.25	11.68	11.44	11.72	11.74	11.16	11.06	10.18		10.63	9.57	9.01	10.77	10.57	10.86	10.70	11.10	10.44		11.10
50	10.36	10.22	10.31	10.18	11.54	11.11	11.61	11.20	10.96	10.88	9.89		10.52	9.50	9.24	10.10	10.69	10.81	10.84	11.01	10.24		11.12
60	10.34	10.19	10.27	10.13	11.34	10.62	10.84	10.67	10.46	10.47	9.71		10.07	9.36	9.20	9.38	9.33	10.78	10.66	11.11	10.18		11.17
70	10.38	10.11	10.13	10.10	11.24	10.61	10.79	10.64	10.47	10.47	9.46		10.04	9.24	6.84	9.31	9.26	10.69	10.79	11.11	10.04		11.18
80	10.29	10.06	10.21	10.08	11.15	10.39	10.43	10.17	10.01	10.13	9.40		9.62	9.02	10.17	8.94	8.84	9.85	9.71	11.05	10.22		11.21
90	10.28	10.05	10.08	10.06	11.13	10.38	10.30	10.20	10.06	10.06	9.31		9.50	8.99	6.39	8.89	8.87	8.81	9.23	10.79	10.22		11.22
100	10.31	10.01	10.17	10.00	11.05	10.20	9.92	9.90	9.71	9.49	9.14		9.13	8.85	10.68	8.72	8.63	8.64	8.35	10.02	10.15		11.25
110	10.29	9.99	10.05	9.95	10.94	10.17	9.93	10.01	9.74	9.38	9.10		9.12	8.89	6.26	8.66	8.40	8.38	8.35	9.41	10.16		11.26
120	10.29	9.95	10.10	9.91	10.96	10.01	9.47	9.52	9.33	9.12	8.87		8.84	8.62	8.17	8.44	8.26	8.16	8.20	9.23	10.02		11.30
130	10.30	9.89	9.92	9.89	10.77	10.02	9.39	9.45	9.49	9.18	8.80		8.83	8.59	7.63	8.33	8.33	8.08	8.15	9.10	9.98		11.32
140	10.25	9.90	9.99	9.89	10.50	9.63	9.13	9.27	9.38	9.02	8.61		8.23	8.27	8.13	7.84	7.92	7.99	7.84	9.10	9.98		11.34
150	10.20	9.90	9.66	9.66	10.45	9.43	8.94	8.57	8.88	8.42	8.02		8.01	8.03	8.90	7.57	7.83	7.99	7.75	9.05	9.98		11.41
															probe error								

Secchi depth

(m)	16	9	16	13	14	14	18	18.5	13	16.5	15	16	16	17	17	17	14	15.5	17	17	14		13

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2010-2011

Mid-Lake site A for the period starting 13 July 2010

Temperature

Date	13/07/2010	10/08/2010	24/08/2010	13/09/2010	5/10/2010	26/10/2010	10/11/2010	25/11/2010	21/12/2010	11/01/2011	27/01/2011	17/02/2011	1/03/2011	15/03/2011	13/04/2011	10/05/2011	31/05/2011	22/06/2011	5/07/2011	9/08/2011
Depth (m)																				
0	11.31	11.01	10.92	11.37	11.90	13.00	13.98	15.96	18.32	19.75	19.62	20.54	20.47	19.94	17.68	15.51	14.13	13.11	12.35	11.07
10	11.29	10.96	10.86	11.02	11.66	11.72	13.25	15.65	18.25	19.62	19.58	20.44	20.48	19.72	17.67	15.52	14.14	13.13	12.33	10.95
20	11.29	10.95	10.85	10.95	11.23	11.53	13.13	13.81	14.51	17.39	18.98	20.35	20.48	19.53	17.64	15.50	14.15	13.12	12.33	10.94
30	11.28	10.95	10.85	10.89	11.01	11.44	11.88	12.10	12.53	12.88	15.19	16.03	15.33	15.41	17.62	15.43	14.15	13.12	12.33	10.93
40	11.28	10.95	10.85	10.85	10.96	11.37	11.54	11.42	11.66	11.62	12.22	12.26	12.17	12.27	12.12	15.32	14.15	13.13	12.33	10.94
50	11.28	10.95	10.85	10.85	10.88	11.31	11.17	11.11	11.24	11.37	11.47	12.09	11.31	11.43	11.39	12.27	11.84	13.11	12.32	10.94
60	11.26	10.94	10.83	10.83	10.85	11.21	11.02	10.98	11.03	11.08	11.13	11.33	11.10	11.11	11.12	11.28	11.31	11.38	11.41	10.94
70	11.01	10.94	10.81	10.82	10.82	11.03	10.93	10.91	10.92	10.96	10.97	11.09	10.98	11.02	10.99	11.09	11.11	11.19	11.18	10.94
80	10.96	10.92	10.80	10.81	10.80	10.89	10.85	10.87	10.88	10.89	10.90	10.96	10.93	10.97	10.95	11.00	11.03	11.07	11.03	10.94
90	10.79	10.84	10.78	10.81	10.78	10.88	10.82	10.84	10.85	10.86	10.86	10.92	10.92	10.92	10.92	10.97	11.00	11.00	11.02	10.94
100	10.75	10.81	10.76	10.80	10.76	10.83	10.81	10.83	10.84	10.86	10.85	10.89	10.90	10.90	10.89	10.93	10.97	10.97	10.98	10.93
110	10.70	10.75	10.76	10.80	10.75	10.82	10.78	10.81	10.81	10.85	10.84	10.88	10.90	10.87	10.88	10.91	10.95	10.95	10.97	10.93
120	10.68	10.73	10.75	10.80	10.75	10.80	10.77	10.81	10.80	10.84	10.84	10.87	10.88	10.87	10.87	10.90	10.95	10.94	10.97	10.93
130	10.67	10.71	10.75	10.78	10.75	10.78	10.77	10.80	10.79	10.83	10.83	10.87	10.87	10.85	10.86	10.89	10.92	10.92	10.95	10.93
140	10.66	10.71	10.74	10.76	10.75	10.79	10.77	10.80	10.79	10.83	10.83	10.85	10.85	10.85	10.84	10.87	10.92	10.91	10.92	10.92
150	10.66	10.70	10.74	10.76	10.75	10.77	10.77	10.80	10.79	10.82	10.83	10.84	10.85	10.85	10.84	10.87	10.91	10.90	10.93	10.92

Dissolved Oxygen (g m^{-3})

Depth (m)																				
0	10.50	9.50	10.64	11.24	9.90	10.12	9.83	9.57	9.00	8.73	8.76	8.60	8.64	8.30	9.17	9.54	9.85	10.07	10.22	10.49
10	11.42	11.29	10.52	10.92	9.80	9.78	9.68	9.32	8.37	8.00	7.98	8.63	8.64	8.73	9.64	10.26	10.71	10.30	10.27	10.62
20	11.57	11.60	10.50	10.62	9.68	9.76	9.52	10.10	9.06	8.74	7.96	8.61	8.69	9.15	9.93	10.81	11.21	10.84	10.09	10.53
30	11.65	11.63	10.44	10.71	9.64	9.75	9.29	10.07	9.52	8.57	7.91	8.72	8.99	9.55	9.86	10.72	10.99	10.92	10.10	10.40
40	11.35	11.59	10.41	10.13	9.51	9.54	9.18	9.70	9.31	8.86	8.23	9.26	9.40	10.06	10.23	10.51	10.91	11.05	10.07	10.32
50	11.30	11.63	10.37	10.17	9.47	9.56	9.05	9.58	9.14	8.55	8.08	9.17	9.33	9.63	9.78	10.15	10.57	10.97	10.07	10.36
60	11.04	11.67	10.31	10.03	9.34	9.32	8.86	9.24	8.86	8.41	7.90	8.84	8.84	9.13	9.67	9.44	9.26	9.54	8.80	10.34
70	10.73	11.81	10.25	10.04	9.31	9.27	8.81	9.29	8.71	8.29	7.66	8.70	8.76	9.11	9.12	9.28	9.01	9.41	8.62	10.38
80	10.04	11.58	10.22	9.85	9.25	8.90	8.75	9.03	8.49	8.10	7.51	8.28	8.43	8.92	9.08	9.13	8.65	8.96	8.10	10.29
90	9.68	11.21	10.18	9.87	9.19	8.90	8.72	9.24	8.47	7.93	7.42	8.19	8.31	9.03	8.46	9.06	8.72	8.91	8.06	10.28
100	9.25	10.56	10.15	9.64	9.17	8.78	8.73	8.80	8.31	7.70	7.33	7.93	8.03	8.53	8.22	8.59	8.37	8.68	7.81	10.31
110	9.06	10.35	10.10	9.67	9.11	8.73	8.64	9.12	8.35	7.56	7.26	7.90	8.00	8.55	8.06	8.60	8.27	8.53	7.72	10.29
120	8.71	9.83	10.06	9.43	9.04	8.61	8.66	8.84	8.07	7.46	7.18	7.86	7.95	8.40	7.92	8.27	7.91	8.45	7.67	10.29
130	8.66	9.44	10.05	9.49	8.95	8.60	8.66	8.67	8.04	7.45	7.16	7.85	7.91	8.35	7.42	8.06	7.84	8.08	7.54	10.30
140	8.59	9.34	10.10	8.83	8.84	8.36	8.66	8.62	7.50	7.42	7.16	7.80	7.79	7.43	7.48	7.72	7.62	7.81	7.15	10.25
150	8.33	9.10	9.96	8.71	8.81	8.17	8.66	8.51	7.46	7.30	7.16	7.47	7.51	7.52	6.98	7.24	7.40	7.30	7.00	10.20

Secchi depth

(m)	14.5	12.8	11	10.5	10.8	12.5	11.5	14.2	17	11	17	12	19	15	17	16.5	17	14	13	16

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2009-2010**

Mid-Lake site A for the period starting 6 July 2009

Temperature

Date	6/07/2009	13/08/2009	7/09/2009	17/09/2009	19/10/2009	12/11/2009	17/12/2009	13/01/2010	2/02/2010	11/02/2010	18/02/2010	10/03/2010	8/04/2010	28/04/2010	20/05/2010	3/06/2010	23/06/2010	13/07/2010	10/08/2010
Depth (m)																			
0	10.93	10.43	10.56	11.63	11.72	13.00	16.99	17.89	19.23	20.60	20.45	20.08	17.36	16.38	15.09	14.11	12.23	11.31	11.01
10	10.93	10.41	10.52	11.08	11.25	12.54	16.25	17.89	19.15	20.53	20.40	20.04	17.35	16.31	15.09	14.00	12.25	11.29	10.96
20	10.92	10.41	10.51	10.71	11.24	12.43	15.85	17.56	17.60	18.34	18.73	19.69	17.35	16.30	15.09	13.99	12.23	11.29	10.95
30	10.92	10.41	10.47	10.57	11.20	12.19	13.45	13.21	13.95	14.51	13.91	15.56	17.34	16.12	15.08	13.99	12.25	11.28	10.95
40	10.91	10.38	10.47	10.50	10.98	11.77	12.54	11.65	11.92	12.03	12.02	12.23	12.28	12.72	12.41	11.71	12.21	11.28	10.95
50	10.92	10.36	10.47	10.49	10.67	11.40	11.34	11.20	11.13	11.07	11.10	11.20	11.19	11.21	11.25	11.12	11.02	11.28	10.95
60	10.92	10.36	10.46	10.48	10.58	10.97	10.86	11.02	10.86	10.88	10.86	10.84	10.82	10.85	10.88	10.90	10.84	11.26	10.94
70	10.92	10.36	10.46	10.48	10.53	10.67	10.68	10.71	10.68	10.68	10.67	10.68	10.67	10.73	10.73	10.77	10.72	11.01	10.94
80	10.91	10.35	10.46	10.47	10.50	10.56	10.57	10.59	10.59	10.62	10.63	10.62	10.62	10.65	10.66	10.69	10.69	10.96	10.92
90	10.92	10.34	10.46	10.47	10.49	10.54	10.53	10.51	10.55	10.58	10.57	10.58	10.60	10.60	10.63	10.65	10.67	10.79	10.84
100	10.92	10.34	10.46	10.46	10.47	10.50	10.49	10.51	10.52	10.55	10.53	10.56	10.57	10.59	10.60	10.63	10.65	10.75	10.81
110	10.91	10.33	10.46	10.46	10.46	10.46	10.48	10.51	10.52	10.52	10.51	10.53	10.57	10.56	10.58	10.61	10.64	10.70	10.75
120	10.91	10.33	10.44	10.45	10.44	10.44	10.46	10.49	10.50	10.51	10.51	10.52	10.55	10.55	10.57	10.59	10.64	10.68	10.73
130	10.91	10.33	10.36	10.42	10.43	10.42	10.44	10.48	10.49	10.50	10.50	10.51	10.53	10.54	10.55	10.56	10.62	10.67	10.71
140	10.90	10.33	10.35	10.38	10.41	10.40	10.44	10.47	10.49	10.50	10.50	10.51	10.53	10.54	10.55	10.56	10.61	10.66	10.71
150	10.90	10.30	10.35	10.38	10.41	10.40	10.44	10.46	10.49	10.49	10.50	10.51	10.53	10.54	10.55	10.56	10.61	10.66	10.70

Dissolved Oxygen (g m^{-3})

Depth (m)																			
0	8.91	9.83	9.37	10.58	11.67	9.88	9.66	9.48	9.29	9.47	9.34	8.84	9.48	10.48	10.57	10.44	10.54	10.50	9.50
10	9.88	10.72	10.29	11.08	12.13	10.80	9.63	9.18	9.26	9.40	9.32	8.28	10.17	10.17	11.29	10.25	10.86	11.42	11.29
20	11.06	11.48	10.48	11.00	11.79	10.78	9.58	9.62	9.38	9.71	9.59	8.75	9.66	9.39	10.84	10.34	10.40	11.57	11.60
30	11.31	11.57	10.49	10.68	11.78	10.84	9.71	9.34	9.17	9.65	9.45	8.92	9.43	9.09	10.63	10.39	10.38	11.65	11.63
40	11.28	11.39	10.46	10.40	11.24	10.56	9.31	9.15	8.86	8.72	8.75	8.60	9.04	8.53	9.06	9.39	10.28	11.35	11.59
50	11.29	11.39	10.36	10.31	11.10	10.47	9.29	8.78	8.36	8.21	8.44	8.14	8.57	8.13	8.68	9.26	9.46	11.30	11.63
60	11.03	11.20	10.18	10.15	10.10	9.86	8.78	8.68	8.06	7.94	7.99	7.73	8.31	7.92	8.11	8.93	9.04	11.04	11.67
70	11.05	11.16	10.21	10.12	10.02	9.86	8.60	8.31	7.88	7.76	7.97	7.59	8.11	7.84	8.08	8.84	8.82	10.73	11.81
80	10.83	10.86	10.09	10.11	9.70	9.24	8.34	8.27	7.69	7.74	7.70	7.51	7.97	7.70	8.03	8.54	8.55	10.04	11.58
90	10.87	10.97	10.16	10.02	9.72	9.26	8.25	7.97	7.47	7.55	7.68	7.38	7.74	7.56	7.70	8.44	8.37	9.68	11.21
100	10.68	10.87	10.23	10.03	9.51	8.60	8.17	7.71	7.37	7.54	7.41	7.25	7.43	7.42	7.51	8.18	8.26	9.25	10.56
110	10.72	10.90	10.30	9.95	9.50	8.60	8.05	7.50	7.23	7.37	7.43	7.22	7.27	7.27	7.39	8.10	8.09	9.06	10.35
120	10.55	10.86	9.91	10.26	9.20	8.20	7.98	7.55	7.23	7.19	7.17	7.15	7.11	7.08	7.17	7.95	8.03	8.71	9.83
130	10.55	10.71	9.80	10.00	9.18	8.15	7.87	7.37	7.18	7.20	7.12	6.98	7.09	7.05	7.11	7.90	8.00	8.66	9.44
140	10.48	10.80	9.52	9.69	8.82	7.70	7.62	7.42	6.90	6.95	6.71	6.57	6.82	6.77	6.79	7.18	7.85	8.59	9.34
150	10.30	10.77	9.46	9.47	8.79	7.72	7.41	7.25	6.88	6.93	6.65	6.46	6.75	6.75	6.73	7.17	7.84	8.33	9.10

Secchi depth

(m)	15	12	15	*	13	12.5	15	14.5	16	*	17	19	21.5	19	19.5	14.5	14	14.5	12.8

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2008-2009**

Mid-Lake site A for the period starting 11 September 2007

Temperature

Date	4/09/2008	16/09/2008	14/10/2008	4/11/2008	26/11/2008	22/12/2008	13/01/2009	22/01/2009	28/01/2009	11/02/2009	25/02/2009	16/03/2009	26/03/2009	15/04/2009	7/05/2009	27/05/2009	18/06/2009	6/07/2009	13/08/2009
Depth (m)																			
0	10.97	11.34	12.59	13.37	15.45	18.84	19.67	19.84	20.88	21.42	20.46	18.71	17.96	16.60	15.05	12.97	11.60	10.93	10.43
10	10.92	11.14	12.09	12.94	15.26	17.50	19.55	19.23	20.17	21.21	20.39	18.29	17.95	16.59	15.04	12.96	11.61	10.93	10.41
20	10.85	10.99	11.93	12.62	15.17	15.77	16.97	19.12	18.45	20.04	20.37	18.25	17.94	16.59	15.04	12.96	11.61	10.92	10.41
30	10.82	10.93	11.85	12.55	12.87	13.32	13.60	13.90	13.21	13.92	14.47	16.68	13.86	16.58	15.04	12.90	11.61	10.92	10.41
40	10.79	10.91	11.75	12.35	12.07	12.27	12.19	12.11	11.90	12.09	12.84	12.43	12.13	12.53	12.55	12.62	11.60	10.91	10.38
50	10.75	10.88	11.59	11.51	11.44	11.39	11.33	11.52	11.31	11.50	11.62	11.56	11.45	11.56	11.64	11.50	11.60	10.92	10.36
60	10.72	10.79	10.90	10.83	10.93	11.06	11.08	11.04	11.05	11.19	11.18	11.22	11.19	11.12	11.17	11.06	11.60	10.92	10.36
70	10.69	10.69	10.76	10.79	10.78	10.88	10.89	10.90	10.89	10.97	10.92	10.98	10.98	10.98	11.01	10.94	11.60	10.92	10.36
80	10.66	10.68	10.71	10.72	10.76	10.81	10.82	10.87	10.84	10.86	10.87	10.88	10.89	10.92	10.93	10.90	11.59	10.91	10.35
90	10.66	10.66	10.69	10.70	10.77	10.78	10.78	10.81	10.80	10.81	10.82	10.83	10.84	10.88	10.89	10.88	11.41	10.92	10.34
100	10.65	10.65	10.68	10.68	10.82	10.75	10.76	10.80	10.78	10.77	10.79	10.81	10.81	10.86	10.86	10.86	11.09	10.92	10.34
110	10.64	10.64	10.66	10.67	10.78	10.73	10.75	10.78	10.74	10.76	10.77	10.80	10.79	10.84	10.86	10.85	11.00	10.91	10.33
120	10.63	10.64	10.64	10.65	10.78	10.71	10.73	10.77	10.74	10.75	10.76	10.79	10.78	10.82	10.84	10.84	10.98	10.91	10.33
130	10.63	10.63	10.60	10.63	10.79	10.70	10.72	10.74	10.73	10.73	10.75	10.77	10.77	10.79	10.82	10.82	10.95	10.91	10.33
140	10.63	10.62	10.59	10.63	10.81	10.70	10.72	10.73	10.72	10.73	10.74	10.77	10.76	10.78	10.80	10.81	10.94	10.90	10.33
150	10.62	10.62	10.59	10.63	10.80	10.70	10.71	10.74	10.72	10.73	10.74	10.76	10.76	10.78	10.80	10.81	10.89	10.90	10.30

Dissolved Oxygen (g m^{-3})

Depth (m)																			
0	10.03	9.84	10.29	*	10.09	9.29	8.67	9.24	8.52	8.48	*	9.26	9.44	9.33	10.05	10.13	10.47	8.91	9.83
10	10.85	10.65	10.29	*	10.08	9.72	9.21	8.89	8.45	8.34	*	9.16	10.06	10.11	10.15	10.25	10.73	9.88	10.72
20	10.90	11.05	10.50	*	10.00	9.39	8.88	8.68	8.47	8.19	*	9.40	10.55	10.76	10.15	10.13	10.59	11.06	11.48
30	11.12	10.91	10.46	*	9.79	9.81	9.02	8.53	8.54	8.20	*	9.12	10.34	10.83	10.15	10.17	10.57	11.31	11.57
40	10.76	10.82	10.34	*	9.23	9.69	8.96	8.46	8.06	8.36	*	8.24	9.86	10.39	9.15	9.78	10.56	11.28	11.39
50	10.88	10.63	10.05	*	9.10	9.05	8.49	8.06	7.98	7.92	*	7.97	9.25	9.58	8.91	9.47	10.49	11.29	11.39
60	10.74	10.55	9.89	*	8.54	8.77	8.25	7.91	7.81	7.80	*	7.62	8.97	9.06	8.67	8.73	10.40	11.03	11.20
70	10.52	10.25	9.86	*	8.60	8.53	8.10	7.64	7.74	7.71	*	7.55	8.94	8.84	8.51	8.60	10.43	11.05	11.16
80	10.48	10.20	9.81	*	8.43	8.47	7.98	7.46	7.66	7.64	*	7.44	8.54	8.21	7.79	8.25	10.43	10.83	10.86
90	10.34	10.13	9.85	*	8.44	8.21	7.92	7.38	7.56	7.60	*	7.37	8.45	8.24	7.79	8.24	10.25	10.87	10.97
100	10.28	10.10	10.03	*	8.20	8.22	7.78	7.25	7.53	7.44	*	7.26	8.24	8.07	7.65	8.10	8.65	10.68	10.87
110	9.79	10.00	10.13	*	8.31	7.99	7.67	7.22	7.47	7.31	*	7.20	8.26	8.12	7.62	8.06	8.53	10.72	10.90
120	9.62	9.97	10.09	*	8.04	7.91	7.63	7.17	7.32	7.26	*	7.01	7.94	8.02	7.63	7.79	8.17	10.55	10.86
130	9.42	9.75	9.83	*	8.09	7.70	7.48	7.21	7.24	7.04	*	7.03	7.93	8.15	7.59	7.83	8.11	10.55	10.71
140	9.37	9.52	9.76	*	7.88	7.59	7.40	7.24	7.08	6.92	*	6.68	7.08	8.01	7.74	7.49	7.99	10.48	10.80
150	9.17	9.24	9.85	*	7.85	7.48	7.25	7.03	6.90	6.72	*	6.59	6.91	7.55	7.35	7.30	7.97	10.30	10.77

Secchi depth

(m)	13.0	14.5	12.2	12.0	10.0	12.0	13.0	14.8	18.0	22.0	20.0	15.6	18.5	18.0	16.0	15.0	16.0	15.0	12.0

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 2007-2008

Mid-Lake site A for the period starting 11 September 2007

Temperature

Date	11/9/2007	9/10/2007	30/10/2007	15/11/2007	4/12/2007	20/12/2007	17/01/2008	31/01/2008	14/02/2008	27/02/2008	13/03/2008	26/03/2008	17/04/2008	7/05/2008	22/05/2008	5/06/2008	19/06/2008	1/07/2008	15/07/2008	7/08/2008	20/08/2008
Depth (m)																					
0	11.00	12.33	12.84	13.47	16.64	17.38	21.23	19.79	19.87	19.28	18.83	19.26	17.88	15.67	14.65	13.60	12.89	11.97	11.42	11.06	10.70
10	10.99	11.69	11.83	13.19	16.20	17.15	19.96	19.62	19.81	19.26	18.75	19.24	17.87	15.67	14.65	13.60	12.90	12.03	11.41	10.98	10.70
20	10.98	11.67	11.76	12.92	14.48	14.76	17.21	17.59	19.65	19.24	18.75	18.92	17.85	15.67	14.65	13.59	12.90	12.03	11.40	10.98	10.69
30	10.99	11.44	11.70	12.86	12.58	13.19	13.64	13.82	16.07	14.08	16.20	16.92	15.58	15.67	14.65	13.60	12.90	12.01	11.40	10.98	10.69
40	10.99	11.42	11.64	12.78	12.02	12.18	12.26	12.31	12.63	12.24	12.54	12.44	12.38	15.27	12.27	13.60	12.90	12.03	11.40	10.98	10.69
50	10.99	11.39	11.51	11.80	11.69	11.75	11.64	11.61	11.80	11.71	11.76	11.77	11.72	12.11	11.66	11.93	12.86	12.03	11.39	10.99	10.70
60	10.99	11.34	11.43	11.49	11.42	11.53	11.41	11.39	11.47	11.44	11.47	11.48	11.48	11.56	11.44	11.54	11.60	12.03	11.39	10.98	10.70
70	10.99	11.16	11.32	11.37	11.29	11.33	11.23	11.26	11.33	11.30	11.34	11.29	11.34	11.37	11.32	11.37	11.36	11.61	11.38	10.98	10.70
80	10.96	11.00	11.23	11.31	11.25	11.23	11.22	11.17	11.25	11.25	11.24	11.23	11.27	11.29	11.27	11.29	11.27	11.39	11.38	10.98	10.70
90	10.96	10.98	11.16	11.17	11.14	11.12	11.12	11.11	11.19	11.18	11.18	11.17	11.20	11.21	11.22	11.24	11.23	11.29	11.35	10.98	10.70
100	10.96	10.98	11.07	11.10	11.10	11.09	11.12	11.09	11.15	11.14	11.14	11.14	11.17	11.16	11.18	11.21	11.21	11.28	11.30	10.98	10.70
110	10.96	10.97	11.04	11.04	11.07	11.04	11.06	11.08	11.11	11.11	11.11	11.12	11.14	11.16	11.16	11.19	11.19	11.28	11.25	10.98	10.70
120	10.96	10.96	11.02	11.02	11.05	11.03	11.04	11.06	11.07	11.09	11.09	11.11	11.15	11.15	11.15	11.16	11.17	11.25	11.22	10.98	10.70
130	10.96	10.96	11.00	11.00	11.02	11.00	11.02	11.05	11.06	11.07	11.07	11.09	11.12	11.12	11.13	11.15	11.15	11.22	11.20	10.98	10.70
140	10.96	10.96	10.98	10.97	10.99	11.01	11.00	11.05	11.05	11.06	11.06	11.08	11.11	11.11	11.12	11.13	11.15	11.17	11.19	10.98	10.70
150	10.96	10.95	10.96	10.95	10.98	10.99	11.00	11.04	11.04	11.05	11.06	11.08	11.11	11.10	11.12	11.13	11.15	11.16	11.19	10.98	10.70

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	11.00	10.23	10.18	10.03	9.35	9.21	8.61	*	10.77	9.20	9.38	9.87	9.49	9.91	10.13	10.36	10.53	10.75	10.89	10.21	9.55
10	11.12	10.37	10.27	10.11	9.45	9.24	8.63	*	8.76	9.09	9.05	8.61	8.97	9.04	9.37	9.84	10.26	10.63	10.66	11.03	10.80
20	10.87	10.12	10.25	10.07	9.23	9.21	8.70	*	9.00	9.32	9.24	8.85	8.46	8.97	9.18	9.72	10.14	10.32	10.51	11.04	11.16
30	10.99	10.17	10.07	10.17	9.36	9.37	8.93	*	9.35	9.45	9.01	8.73	8.52	8.86	9.16	9.63	10.10	10.37	10.48	10.94	11.11
40	10.84	9.92	10.02	9.97	9.09	9.09	8.69	*	9.01	8.92	8.96	8.57	8.72	8.87	8.68	9.81	10.12	10.40	10.42	10.72	11.08
50	10.92	10.09	9.85	9.66	9.08	9.21	8.67	*	8.64	8.82	8.60	8.51	8.48	8.45	8.56	9.22	10.10	10.31	10.52	10.83	11.07
60	11.07	9.96	9.52	9.75	9.14	8.69	8.60	8.70	8.44	8.49	8.34	8.15	8.20	8.25	8.58	8.96	9.51	10.36	10.45	10.60	11.05
70	10.89	9.90	9.77	9.30	8.74	8.69	8.26	8.22	8.19	8.15	8.02	7.79	7.84	7.89	8.37	8.65	9.07	10.28	10.39	10.76	10.98
80	10.90	9.59	9.58	9.12	8.76	8.38	8.03	8.05	8.16	7.88	7.92	7.52	7.71	7.90	8.30	8.53	8.91	9.60	10.34	10.74	10.96
90	10.66	9.63	9.42	9.07	8.62	8.46	8.10	8.06	7.99	7.87	7.76	7.47	7.57	7.68	8.22	8.45	8.72	9.18	10.23	10.73	10.91
100	10.64	9.58	9.49	9.14	8.46	8.41	7.90	7.90	7.97	7.86	7.69	7.45	7.45	7.46	8.14	8.44	8.66	9.06	9.93	10.72	10.90
110	10.62	9.57	9.16	8.83	8.37	8.46	7.83	7.87	7.81	7.64	7.50	7.20	7.29	7.38	8.03	8.19	8.43	8.72	9.34	10.68	10.84
120	10.66	9.52	9.27	8.95	8.42	8.08	7.95	7.52	7.82	7.39	7.45	7.20	7.29	7.38	7.94	8.16	8.32	8.55	8.94	10.67	10.83
130	10.42	9.35	9.01	8.81	8.31	8.13	7.72	7.40	7.59	7.41	7.27	7.16	7.18	7.19	7.86	7.86	8.14	8.31	8.79	10.63	10.57
140	10.40	9.30	9.11	8.81	8.28	7.88	7.74	7.27	7.62	7.05	7.10	7.10	7.13	7.17	7.81	7.61	8.01	8.25	8.48	10.62	10.38
150	10.37	9.13	8.91	8.45	7.95	7.95	7.33	7.35	7.27	7.00	6.76	6.59	6.72	6.85	7.40	7.50	7.73	8.08	8.48	10.57	9.67

Secchi depth

(m)	11	15	16	14	15	17.5	22.5	21.5	25	22	22	19	20.5	16	17	15	16.5	14	13	12.5	12.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2006-2007**
Mid-Lake site A for the period starting 4 September 2006

Temperature

Date	4/09/2006	26/09/2006	18/10/2006	1/11/2006	5/12/2006	19/12/2006	9/01/2007	25/01/2007	8/02/2007	21/02/2007	21/03/2007	3/04/2007	19/04/2007	8/05/2007	22/05/2007	14/06/2007	27/06/2007	18/07/2007	8/08/2007	23/08/2007	11/09/2007
Depth (m)																					
0	11.10	11.88	11.72	12.43	15.21	15.62	16.51	18.60	19.31	19.58	18.70	18.04	16.49	19.29	15.17	13.56	12.38	11.43	11.15	11.00	11.00
10	10.93	11.48	11.73	12.27	14.06	15.46	16.41	18.42	18.98	19.12	18.03	18.03	16.48	18.98	15.16	13.56	12.39	11.43	11.15	11.00	10.99
20	10.93	11.29	11.72	12.25	13.87	14.45	15.44	17.96	18.16	17.62	17.99	17.94	16.47	18.16	15.16	13.56	12.39	11.43	11.16	11.00	10.98
30	10.89	11.19	11.69	12.20	13.69	14.15	14.42	15.82	14.86	15.17	15.18	16.72	16.47	14.86	15.16	13.56	12.39	11.36	11.15	11.00	10.99
40	10.87	11.15	11.45	12.10	13.16	12.43	12.25	13.05	12.89	13.09	12.65	13.50	13.78	12.89	15.15	13.56	12.39	11.29	11.16	11.00	10.99
50	10.83	11.08	11.34	11.96	11.77	11.64	11.74	11.84	11.89	11.91	11.94	12.33	12.47	11.89	11.99	13.55	12.39	11.27	11.16	11.00	10.99
60	10.82	11.06	11.25	11.34	11.20	11.36	11.29	11.47	11.39	11.46	11.51	11.65	11.69	11.39	11.54	11.77	12.38	11.25	11.15	11.00	10.99
70	10.82	11.00	11.21	11.17	11.11	11.21	11.15	11.26	11.21	11.21	11.22	11.28	11.33	11.21	11.33	11.35	11.39	11.22	11.16	11.01	10.99
80	10.82	10.94	11.16	11.06	11.06	11.10	11.09	11.14	11.15	11.15	11.16	11.22	11.20	11.15	11.21	11.22	11.28	11.17	11.16	11.01	10.96
90	10.81	10.90	11.08	10.99	10.97	11.03	11.03	11.04	11.06	11.05	11.09	11.11	11.13	11.06	11.12	11.11	11.22	11.14	11.16	11.01	10.96
100	10.81	10.87	10.97	10.94	10.94	11.00	11.00	11.00	11.03	11.05	11.05	11.10	11.09	11.03	11.10	11.10	11.16	11.13	11.16	11.01	10.96
110	10.81	10.84	10.89	10.91	10.91	10.96	10.98	10.98	11.01	11.02	11.03	11.04	11.05	11.01	11.07	11.09	11.12	11.12	11.16	11.01	10.96
120	10.80	10.81	10.86	10.88	10.90	10.94	10.97	10.99	11.06	11.02	11.02	11.04	11.04	11.06	11.07	11.08	11.11	11.12	11.16	11.01	10.96
130	10.79	10.79	10.85	10.85	10.88	10.92	10.95	10.97	10.99	10.99	11.01	11.01	11.03	10.99	11.03	11.07	11.08	11.11	11.16	11.01	10.96
140	10.76	10.78	10.83	10.84	10.88	10.89	10.94	10.97	10.97	10.98	10.99	11.00	11.02	10.97	11.03	11.05	11.07	11.10	11.16	11.01	10.96
150	10.75	10.76	10.82	10.85	10.88	10.91	10.93	10.99	10.96	11.02	11.04	11.03	11.02	11.00	11.04	11.05	11.07	11.10	11.16	11.01	10.96

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.52	10.31	10.36	10.23	9.62	9.52	9.35	8.99	8.95	9.16	9.31	9.44	9.74	9.20	10.01	10.01	10.26	10.36	10.96	11.02	11.00
10	10.47	10.28	10.31	10.16	9.69	9.52	9.52	8.95	8.96	9.26	9.27	9.51	9.73	9.29	10.06	9.95	10.37	10.43	11.08	11.05	11.12
20	10.33	10.25	10.23	10.14	9.56	9.43	9.64	8.95	8.77	9.22	9.27	9.45	9.84	9.08	10.12	9.83	10.48	10.56	11.05	11.15	10.87
30	10.23	10.22	10.27	10.07	9.48	9.50	9.49	8.61	8.78	9.21	8.52	9.30	9.75	9.09	10.06	9.74	10.25	10.27	10.89	11.01	10.99
40	10.13	10.10	10.14	10.08	9.38	9.39	9.47	8.84	8.95	9.08	8.94	8.86	9.26	9.28	9.87	9.71	10.17	10.11	10.89	10.92	10.84
50	10.00	9.96	9.99	10.03	9.05	9.28	9.33	8.66	8.68	8.71	8.77	8.87	9.11	9.00	9.39	9.70	10.12	9.88	10.67	10.90	10.92
60	9.91	10.06	9.93	9.73	9.15	8.97	9.15	8.61	8.62	8.63	8.72	8.76	9.00	8.93	8.83	9.28	10.23	9.84	10.67	10.84	11.07
70	9.82	9.95	9.83	9.54	8.79	8.89	9.02	8.53	8.48	8.57	8.76	8.82	8.96	8.78	8.90	8.45	9.67	9.60	10.67	10.68	10.89
80	9.88	9.83	9.82	9.51	8.66	8.85	8.85	8.34	8.47	8.41	8.62	8.49	8.89	8.78	8.62	8.42	9.34	9.39	10.78	10.88	10.90
90	9.78	9.71	9.71	9.33	8.69	8.67	8.75	8.29	8.29	8.40	8.54	8.53	8.70	8.59	8.66	7.89	8.47	8.36	10.67	10.73	10.66
100	9.82	9.69	9.65	9.30	8.49	8.46	8.65	7.99	8.21	8.01	8.36	8.23	8.58	8.51	8.13	7.66	8.56	8.20	10.79	10.67	10.64
110	9.73	9.62	9.47	9.21	8.40	8.38	8.38	8.02	8.04	7.95	8.22	8.24	8.41	8.33	8.20	7.74	8.40	7.87	10.66	10.70	10.62
120	9.79	9.38	9.37	9.08	8.34	8.33	8.38	7.88	7.84	7.72	8.02	8.01	8.24	8.12	7.74	7.69	8.30	7.92	10.61	10.76	10.66
130	9.65	9.35	9.29	9.00	8.24	8.26	8.27	7.81	7.91	7.71	7.58	8.09	8.01	8.19	7.74	7.54	7.95	7.75	10.52	10.55	10.42
140	9.61	9.38	9.10	8.94	8.22	8.21	8.14	7.75	7.86	7.61	7.58	7.72	7.66	8.15	7.34	7.35	7.94	7.74	10.50	10.75	10.40
150	9.65	9.13	9.02	8.69	7.96	7.82	7.89	7.45	7.25	7.35	7.25	7.25	7.32	7.50	7.18	7.39	7.58	7.55	10.46	10.54	10.37

Secchi depth

(m)	11	17.5	13	14.5	16	15.5	13.5	14.5	16	18.2	16.5	19	16	16	18.5	18	18.5	14.5	14	13	11

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2005-2006**
Mid-Lake site A for the period starting 17 August 2005

Temperature

Date	17/08/2005	31/08/2005	14/09/2005	29/09/2005	12/10/2005	25/10/2005	10/11/2005	1/12/2005	10/01/2006	2/02/2006	1/03/2006	12/04/2006	27/04/2006	9/05/2006	30/05/2006	27/06/2006	11/07/2006	25/07/2006	4/09/2006
Depth (m)																			
0	11.17	11.74	12.42	11.91	11.92	13.40	16.10	15.09	17.40	20.20	19.50	16.71	16.31	15.70	14.21	11.94	11.51	11.15	11.10
10	10.98	11.24	11.76	11.68	11.79	12.84	14.59	14.93	17.10	20.11	19.50	16.72	16.29	15.70	14.21	11.99	11.51	11.15	10.93
20	10.97	11.10	11.22	11.67	11.76	12.17	14.27	14.22	16.85	18.15	19.25	16.72	16.29	15.70	14.21	11.99	11.50	11.15	10.93
30	10.97	11.05	11.05	11.66	11.66	11.63	12.36	13.34	14.84	15.46	16.14	16.71	16.29	15.70	14.21	11.99	11.48	11.15	10.89
40	10.97	11.00	11.01	11.60	11.47	11.47	11.66	12.32	12.21	13.40	12.93	16.48	13.96	13.40	14.20	11.99	11.48	11.15	10.87
50	10.97	10.98	10.98	11.18	11.39	11.29	11.27	11.66	11.60	11.75	11.57	12.00	12.20	11.94	14.16	11.99	11.48	11.15	10.83
60	10.97	10.97	10.99	11.02	11.37	11.17	11.15	11.26	11.21	11.35	11.35	11.53	11.56	11.36	11.54	11.39	11.47	11.15	10.82
70	10.96	10.97	10.97	10.97	11.26	11.06	11.04	11.11	11.13	11.19	11.16	11.29	11.30	11.23	11.27	11.21	11.46	11.15	10.82
80	10.97	10.96	10.97	10.97	11.13	10.99	11.00	11.06	11.06	11.11	11.14	11.19	11.19	11.14	11.19	11.16	11.45	11.15	10.82
90	10.96	10.96	10.96	10.96	11.07	10.97	10.98	11.01	11.05	11.06	11.06	11.12	11.12	11.10	11.16	11.15	11.42	11.15	10.81
100	10.96	10.95	10.96	10.95	11.01	10.97	10.97	10.98	11.04	11.04	11.05	11.08	11.08	11.09	11.12	11.14	11.23	11.15	10.81
110	10.96	10.94	10.94	10.94	10.98	10.94	10.95	10.97	11.02	11.02	11.05	11.05	11.07	11.06	11.11	11.14	11.20	11.15	10.81
120	10.96	10.94	10.93	10.93	10.98	10.94	10.94	10.97	11.00	11.02	11.05	11.03	11.06	11.06	11.09	11.13	11.19	11.15	10.80
130	10.96	10.93	10.93	10.92	10.96	10.93	10.93	10.96	10.99	11.00	11.03	11.02	11.05	11.04	11.07	11.13	11.18	11.15	10.79
140	10.95	10.93	10.91	10.91	10.96	10.93	10.94	10.96	10.99	11.00	11.00	11.02	11.04	11.03	11.07	11.12	11.18	11.15	10.76
150	10.93	10.93	10.89	10.91	10.96	10.92	10.96	10.97	10.98	10.99	11.00	11.02	11.04	11.04	11.07	11.10	11.14	11.15	10.75

Dissolved Oxygen (g m^{-3})

Depth (m)																			
0	10.52	10.47	10.26	10.35	10.38	10.04	9.95	9.70	9.23	9.00	9.20	9.33	9.39	9.46	9.97	10.29	10.84	10.54	10.52
10	10.55	10.47	10.26	10.47	10.49	9.98	9.99	9.94	9.38	9.39	9.24	9.15	9.96	9.59	10.49	10.27	10.88	10.94	10.47
20	10.41	10.26	10.37	10.39	10.40	10.04	9.88	9.69	9.37	9.20	9.43	9.51	9.39	9.47	9.97	10.30	10.77	10.59	10.33
30	10.39	10.28	10.19	10.39	10.44	9.89	9.74	9.26	8.96	8.94	8.99	9.23	9.31	9.50	10.21	10.22	10.76	10.54	10.23
40	10.31	9.80	9.40	10.32	10.25	9.61	9.48	9.74	8.95	8.69	9.02	8.92	8.82	8.90	9.98	10.22	10.74	10.34	10.13
50	10.29	9.66	9.39	10.20	10.23	9.51	9.36	9.63	8.61	8.59	8.91	8.61	8.70	8.51	10.10	10.16	10.71	10.54	10.00
60	10.17	9.57	9.18	9.83	9.92	9.14	8.65	9.08	8.69	8.22	8.78	8.49	8.31	8.29	9.25	9.64	10.70	10.38	9.91
70	10.13	9.41	9.26	9.63	9.86	9.03	8.83	8.80	8.50	8.20	8.52	8.20	8.51	8.26	8.87	8.85	10.64	10.45	9.82
80	10.06	9.38	9.01	9.46	9.63	8.76	8.50	8.78	8.21	8.04	8.19	7.94	8.17	8.19	8.47	8.42	10.47	10.36	9.88
90	10.05	9.42	9.07	9.38	9.68	8.76	8.59	8.40	8.12	8.07	7.82	7.98	8.10	8.08	8.33	8.15	10.46	10.44	9.78
100	10.04	9.41	8.86	9.20	9.33	8.54	8.35	8.39	7.96	7.88	7.89	8.05	8.12	8.06	8.16	8.05	9.65	10.34	9.82
110	10.04	9.37	8.88	9.12	9.24	8.49	8.41	8.35	7.92	7.94	7.85	7.91	7.84	7.96	8.11	7.96	8.87	10.35	9.73
120	9.96	9.23	8.56	9.03	9.13	8.44	8.22	8.28	7.89	7.62	7.86	7.44	7.57	7.77	8.04	7.89	8.41	10.17	9.79
130	9.93	9.14	8.56	8.96	9.07	8.40	8.27	8.20	7.82	7.78	7.72	7.58	7.49	7.66	8.04	7.84	8.31	10.33	9.65
140	9.32	8.94	8.38	8.79	9.01	8.38	7.92	8.08	7.62	7.36	7.67	7.34	7.32	7.58	7.99	7.82	8.29	10.39	9.61
150	8.63	8.57	8.20	8.56	8.94	8.24	7.86	8.00	7.39	7.28	7.34	7.19	7.15	7.23	7.57	7.61	8.14	10.28	9.65

Secchi depth

(m)	13	13	13	14	14	15	17.5	19.3	19	15.5	15.3	15.8	17	17.5	18.2	15.2	13.5	12	11

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2004-2005**
Mid-Lake site A for the period starting 24 August 2004

Temperature

Date	24/08/2004	7/09/2004	21/10/2004	2/11/2004	22/11/2004	15/12/2004	11/01/2005	25/01/2005	9/02/2005	22/02/2005	10/03/2005	21/03/2005	14/04/2005	18/05/2005	9/06/2005	20/06/2005	20/07/2005	3/08/2005	17/08/2005	31/08/2005	14/09/2005
Depth (m)																					
0	10.92	10.70	11.75	12.94	15.31	14.17	16.97	19.27	20.73	20.05	19.25	19.34	17.92	14.33	12.98	12.67	11.46	11.12	11.17	11.74	12.42
10	10.83	10.66	11.61	12.89	15.15	14.10	16.01	18.05	20.19	19.73	19.24	19.17	17.96	14.31	12.99	12.47	11.31	11.11	10.98	11.24	11.76
20	10.83	10.66	11.60	12.49	13.69	13.89	15.83	16.72	18.05	18.80	19.23	18.81	17.95	14.24	12.98	12.43	11.31	11.10	10.97	11.10	11.22
30	10.83	10.66	11.59	11.65	13.17	13.79	13.37	14.55	14.65	14.02	14.92	14.59	15.13	14.13	12.98	12.42	11.30	11.11	10.97	11.05	11.05
40	10.83	10.66	11.59	11.28	11.61	13.59	12.39	13.12	12.83	12.36	13.06	12.62	12.92	13.88	12.98	12.44	11.30	11.10	10.97	11.00	11.01
50	10.83	10.65	11.58	10.93	11.09	11.35	11.33	11.89	11.75	11.49	11.75	11.64	12.00	11.47	12.97	12.42	11.28	11.11	10.97	10.98	10.98
60	10.83	10.66	11.15	10.75	10.97	11.03	11.04	11.23	11.12	11.00	11.16	11.20	11.33	11.18	12.57	11.54	11.28	11.10	10.97	10.97	10.99
70	10.83	10.66	10.78	10.72	10.77	10.88	10.86	10.98	10.90	10.87	10.92	10.96	10.99	10.97	11.13	11.07	11.26	11.11	10.96	10.97	10.97
80	10.83	10.65	10.74	10.64	10.73	10.80	10.81	10.91	10.83	10.82	10.88	10.94	10.88	10.93	10.98	11.00	11.21	11.10	10.97	10.96	10.97
90	10.82	10.61	10.72	10.62	10.69	10.73	10.75	10.80	10.75	10.80	10.80	10.81	10.82	10.89	10.95	10.93	10.98	11.10	10.96	10.96	10.96
100	10.83	10.58	10.71	10.61	10.68	10.70	10.74	10.81	10.80	10.78	10.80	10.82	10.78	10.90	10.90	10.91	10.94	11.10	10.96	10.95	10.96
110	10.83	10.56	10.67	10.60	10.64	10.67	10.69	10.72	10.73	10.75	10.74	10.76	10.76	10.87	10.89	10.87	10.93	11.08	10.96	10.94	10.94
120	10.83	10.56	10.66	10.58	10.64	10.66	10.68	10.73	10.76	10.76	10.76	10.79	10.76	10.88	10.87	10.86	10.89	10.99	10.96	10.94	10.93
130	10.82	10.55	10.64	10.57	10.61	10.63	10.66	10.69	10.71	10.71	10.72	10.73	10.74	10.81	10.84	10.86	10.88	10.97	10.96	10.93	10.93
140	10.82	10.53	10.61	10.57	10.61	10.61	10.65	10.68	10.74	10.73	10.75	10.77	10.74	10.82	10.80	10.86	10.88	10.93	10.95	10.93	10.91
150	10.79	10.47	10.56	10.58	10.60	10.62	10.67	10.67	10.70	10.70	10.71	10.72	10.72	10.77	10.78	10.85	10.87	10.90	10.93	10.93	10.89

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.7	10.7	10.4	10.1	9.5	9.9	9.4	8.95	8.64	8.74	8.77	8.89	9.12	9.75	10.12	10.15	10.7	10.7	10.52	10.47	10.26
10	10.5	10.5	10.1	10.2	9.6	9.8	9.5	8.87	8.75	8.78	8.77	8.87	9.01	9.75	10.03	10.12	10.5	10.5	10.55	10.47	10.26
20	10.5	10.5	10.3	10.0	9.5	9.8	9.5	8.79	8.73	8.59	8.72	8.85	9.04	9.66	9.97	10.17	10.5	10.5	10.41	10.26	10.37
30	10.4	10.4	10.1	9.9	9.5	9.7	9.2	8.72	8.68	8.62	8.01	8.34	8.37	9.55	9.97	10.03	10.4	10.4	10.39	10.28	10.19
40	10.4	10.3	10.2	9.9	9.5	9.7	9.2	8.80	8.76	8.68	8.48	8.39	8.66	9.49	9.88	9.99	10.4	10.3	10.31	9.80	9.40
50	10.3	10.3	10.0	9.6	9.4	9.3	9.0	8.54	8.45	8.36	8.16	8.17	8.34	9.01	9.87	9.93	10.3	10.3	10.29	9.66	9.39
60	10.3	10.2	9.9	9.5	9.1	9.4	8.9	8.50	8.41	8.37	8.14	8.22	8.21	8.66	9.69	9.05	10.3	10.2	10.17	9.57	9.18
70	10.2	10.2	9.7	9.3	9.1	9.3	8.8	8.40	8.36	8.32	8.04	8.18	8.21	8.56	8.90	8.72	10.2	10.2	10.13	9.41	9.26
80	10.2	10.1	9.6	9.2	9.0	9.2	8.7	8.29	8.24	8.27	8.04	8.13	8.19	8.22	8.70	8.33	10.2	10.1	10.06	9.38	9.01
90	10.1	10.0	9.4	9.1	8.8	9.1	8.6	8.18	8.12	8.13	8.03	8.11	8.27	8.07	8.39	8.23	10.1	10.0	10.05	9.42	9.07
100	10.1	10.0	9.4	9.0	8.8	9.0	8.5	8.13	7.86	7.93	7.89	7.90	7.99	7.90	8.27	8.06	10.1	10.0	10.04	9.41	8.86
110	9.9	9.9	9.3	9.0	8.8	8.9	8.4	8.07	7.84	7.81	7.82	7.83	7.82	7.75	8.16	7.99	9.9	9.9	10.04	9.37	8.88
120	10.0	9.9	9.3	8.9	8.6	8.8	8.4	8.02	7.78	7.71	7.73	7.81	7.66	7.78	8.08	7.70	10.0	9.9	9.96	9.23	8.56
130	10.0	9.9	9.3	8.7	8.6	8.7	8.3	8.00	7.76	7.71	7.68	7.78	7.69	7.77	8.03	7.57	10.0	9.9	9.93	9.14	8.56
140	9.9	9.9	9.2	8.7	8.4	8.5	8.1	7.83	7.59	7.50	7.36	7.48	7.56	7.69	7.94	7.42	9.9	9.9	9.32	8.94	8.38
150	9.8	9.7	9.0	8.6	8.2	8.3	7.9	7.51	7.54	7.46	7.35	7.43	7.47	7.67	7.75	7.36	9.8	9.7	8.63	8.57	8.20

Secchi depth

(m)	12.5	12	15	16	16	19.5	20	19.5	18	21.5	18.5	20	17.2	16	14.1	13.8	13	14	13	13	13

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2003-2004**
Mid-Lake site A for the period starting 14 July 2003

Temperature

Date	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003	7/10/2003	21/10/2003	19/11/2003	4/12/2003	18/12/2003	13/01/2004	26/02/2004	8/03/2004	31/03/2004	14/04/2004	10/05/2004	10/06/2004	13/07/2004	26/07/2004	24/08/2004	7/09/2004
Depth (m)																					
0	11.85	11.38	11.25	11.23	11.13	11.48	13.11	13.96	16.15	17.72	20.29	17.20	17.50	16.49	15.27	14.74	13.04	11.59	11.29	10.92	10.70
10	11.86	11.38	11.24	11.17	11.13	11.39	11.92	13.79	15.11	17.76	19.60	17.19	17.00	16.29	15.24	14.74	13.05	11.64	11.26	10.83	10.66
20	11.86	11.38	11.24	11.12	11.11	11.37	11.53	13.78	14.53	15.57	16.72	17.18	16.70	16.23	15.21	14.74	13.04	11.62	11.25	10.83	10.66
30	11.86	11.38	11.24	11.11	11.06	11.37	11.40	13.70	12.96	13.23	13.87	17.16	16.55	16.19	15.19	14.74	13.05	11.65	11.25	10.83	10.66
40	11.86	11.38	11.24	11.11	11.06	11.32	11.34	12.30	12.26	12.33	12.58	12.90	13.30	16.15	15.13	14.73	13.05	11.62	11.26	10.83	10.66
50	11.86	11.38	11.24	11.11	11.06	11.31	11.23	11.35	11.48	11.84	11.58	11.83	11.60	12.51	12.40	12.56	13.05	11.65	11.26	10.83	10.65
60	11.86	11.38	11.24	11.11	11.06	11.31	11.19	11.28	11.41	11.39	11.33	11.53	11.60	11.59	11.67	11.66	13.05	11.64	11.26	10.83	10.66
70	11.86	11.38	11.24	11.10	11.06	11.31	11.16	11.23	11.26	11.26	11.26	11.35	11.40	11.40	11.48	11.43	12.42	11.65	11.25	10.83	10.66
80	11.35	11.38	11.24	11.00	11.06	11.30	11.15	11.19	11.25	11.22	11.23	11.30	11.35	11.34	11.39	11.38	11.56	11.64	11.25	10.83	10.65
90	11.31	11.38	11.24	11.09	11.06	11.29	11.13	11.16	11.20	11.17	11.22	11.25	11.27	11.30	11.32	11.35	11.51	11.66	11.25	10.82	10.61
100	11.27	11.35	11.24	11.09	11.06	11.25	11.11	11.15	11.18	11.17	11.21	11.23	11.27	11.27	11.30	11.32	11.39	11.65	11.25	10.83	10.58
110	11.24	11.34	11.23	11.09	11.06	11.21	11.10	11.12	11.17	11.15	11.19	11.20	11.24	11.26	11.28	11.30	11.35	11.65	11.26	10.83	10.56
120	11.22	11.32	11.22	11.09	11.06	11.14	11.10	11.11	11.18	11.14	11.18	11.18	11.22	11.24	11.25	11.30	11.34	11.65	11.26	10.83	10.56
130	11.21	11.27	11.22	11.08	11.06	11.11	11.08	11.09	11.14	11.13	11.17	11.18	11.20	11.22	11.23	11.28	11.33	11.49	11.26	10.82	10.55
140	11.21	11.26	11.21	11.08	11.06	11.09	11.08	11.09	11.15	11.13	11.16	11.17	11.20	11.21	11.21	11.27	11.32	11.39	11.26	10.82	10.53
150	11.20	11.22	11.20	11.08	11.07	11.09	11.08	11.09	11.14	11.13	11.16	11.17	11.20	11.21	11.21	11.26	11.31	11.34	11.26	10.79	10.47

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.3	10.6	10.5	10.5	10.5	10.5	10.1	9.9	9.5	9.1	9.2	9.3	9.4	9.2	9.5	9.7	10.2	10.5	10.6	10.7	10.7
10	10.2	10.4	10.5	10.5	10.6	10.5	10.0	9.9	9.5	9.2	9.3	9.4	9.0	9.1	9.2	9.6	9.9	10.5	10.6	10.5	10.5
20	10.2	10.2	10.3	10.4	10.4	10.4	10.2	9.8	9.4	9.0	9.1	9.0	8.8	9.0	9.1	9.4	9.8	10.5	10.6	10.5	10.5
30	10.2	9.9	10.1	10.3	10.1	10.1	10.0	9.5	9.2	9.2	9.1	8.9	8.5	9.0	8.8	9.3	9.5	10.3	10.3	10.4	10.4
40	10.1	9.9	10.0	10.0	9.8	10.0	9.7	9.3	9.0	9.1	8.7	8.4	8.0	8.9	8.8	9.2	9.5	10.1	10.1	10.4	10.3
50	10.0	9.0	9.9	9.9	9.8	9.8	9.4	9.0	8.7	8.8	8.5	8.1	7.9	8.2	8.2	8.6	9.4	9.8	9.9	10.3	10.3
60	9.9	8.8	9.8	9.7	9.6	9.7	9.2	8.9	8.6	8.4	8.2	8.0	7.7	8.0	8.0	8.2	9.4	9.9	9.8	10.3	10.2
70	9.9	8.7	9.8	9.6	9.6	9.6	9.1	8.7	8.5	8.3	8.1	7.9	7.6	8.0	7.8	7.9	9.1	9.6	9.7	10.2	10.2
80	8.7	8.6	9.7	9.5	9.5	9.6	8.9	8.6	8.4	8.1	8.0	7.9	7.5	8.0	7.7	7.9	8.5	9.7	9.6	10.2	10.1
90	8.5	8.5	9.7	9.5	9.5	9.5	8.9	8.6	8.3	8.1	8.0	7.9	7.5	7.9	7.6	7.8	8.0	9.5	9.5	10.1	10.0
100	8.2	8.4	9.6	9.5	9.5	9.4	8.8	8.6	8.2	7.9	7.8	7.8	7.4	7.8	7.5	7.7	7.7	9.5	9.4	10.1	10.0
110	8.2	8.1	9.6	9.4	9.5	9.3	8.8	8.4	8.2	7.9	7.8	7.7	7.3	7.7	7.4	7.6	7.6	9.4	9.4	9.9	9.9
120	8.0	8.0	9.5	9.4	9.5	9.3	8.7	8.4	8.1	7.8	7.7	7.5	7.1	7.6	7.3	7.4	7.5	9.4	9.3	10.0	9.9
130	8.0	7.9	9.5	9.4	9.4	9.1	8.7	8.3	8.0	7.8	7.5	7.3	7.0	7.5	7.2	7.3	7.4	9.1	9.2	10.0	9.9
140	7.8	7.8	9.5	9.3	9.4	9.0	8.5	8.2	7.9	7.5	7.4	7.3	6.9	7.4	7.0	7.3	7.3	8.3	9.2	9.9	9.9
150	7.7	7.6	9.3	9.3	9.4	8.9	8.5	8.0	7.7	7.3	7.2	7.1	6.8	7.1	6.8	7.1	7.3	8.0	9.2	9.8	9.7

Secchi depth

(m)	14.5	14	13.5	13	12.5	13	17	16	18.5	17.5	19	17	15	16	15	18	13.5	12	11	12.5	12

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2003-2004**
Additional site B (Kuratau Basin) for the period starting 14 July 2003

Temperature

Date	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003	7/10/2003	21/10/2003	19/11/2003	4/12/2003	18/12/2003	13/01/2004	26/02/2004	8/03/2004	31/03/2004	14/04/2004	10/05/2004	10/06/2004	13/07/2004	26/07/2004	24/08/2004	7/09/2004
Depth (m)																					
0	11.82	11.32	11.38	11.36	11.13	11.70	13.31	13.79	15.65	17.08	20.25	16.83	17.63	15.92	15.10	14.72	13.02	11.43	11.26	10.92	10.85
10	11.80	11.29	11.22	11.17	11.11	11.44	12.28	13.49	15.00	16.43	19.73	16.72	16.56	15.90	15.02	14.68	12.95	11.40	11.20	10.77	10.59
20	11.79	11.29	11.22	11.14	11.07	11.40	11.71	13.33	13.81	15.28	16.73	16.58	16.51	15.89	15.00	14.64	12.84	11.41	11.20	10.73	10.58
30	11.79	11.29	11.21	11.13	11.03	11.35	11.46	12.22	12.37	13.38	13.74	16.16	16.40	15.88	14.99	14.47	12.71	11.41	11.20	10.72	10.57
40	11.79	11.29	11.21	11.13	11.02	11.34	11.38	11.67	11.90	12.91	12.48	15.75	15.53	15.53	14.18	14.07	12.67	11.41	11.19	10.72	10.57
50	11.79	11.29	11.21	11.13	11.02	11.33	11.28	11.40	11.57	11.65	11.62	12.97	12.55	12.89	12.48	12.48	12.66	11.41	11.19	10.72	10.56
60	11.78	11.29	11.21	11.13	11.01	11.25	11.23	11.31	11.37	11.33	11.40	11.88	11.64	11.69	11.72	11.78	12.57	11.40	11.19	10.72	10.56
70	11.78	11.29	11.21	11.12	11.01	11.12	11.15	11.24	11.25	11.27	11.28	11.55	11.47	11.49	11.51	11.47	12.51	11.41	11.18	10.72	10.56
80	11.77	11.29	11.16	11.12	11.01	11.06	11.09	11.18	11.21	11.25	11.20	11.38	11.41	11.37	11.43	11.38	12.27	11.37	11.18	10.72	10.51
90	11.35	11.29	11.04	11.11	11.01	11.02	11.08	11.13	11.13	11.19	11.16	11.32	11.35	11.32	11.37	11.31	11.77	11.26	11.17	10.71	10.45
100	11.27	11.29	10.91	11.08	11.01	11.02	11.05	11.10	11.11	11.16	11.14	11.28	11.33	11.26	11.30	11.24	11.65	11.24	11.17	10.66	10.38

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.7	10.9	10.8	10.6	10.6	10.4	10.5	10.1	9.8	9.1	9.2	9.3	9.5	8.8	10.5	11.4	12.3	10.6	10.5	10.5	10.8
10	10.5	11.0	10.6	10.6	10.5	10.4	10.4	10.3	9.9	9.3	9.2	9.1	9.0	9.0	9.5	10.2	10.7	10.6	10.5	10.4	10.7
20	10.3	11.3	10.4	10.2	10.2	10.2	10.1	9.9	9.6	9.4	9.2	9.0	8.9	8.9	9.2	9.9	10.1	10.1	10.5	10.5	10.7
30	10.2	11.2	10.1	9.9	10.1	9.9	10.0	9.6	9.3	9.1	9.0	9.0	8.7	8.8	8.9	9.4	9.7	9.8	10.3	10.4	10.6
40	10.1	11.2	9.9	9.8	9.9	9.6	9.7	9.2	8.9	9.1	8.8	8.7	8.2	8.7	8.5	9.1	9.6	9.6	10.0	10.3	10.5
50	10.0	10.9	9.8	9.6	9.8	9.6	9.4	9.0	8.8	8.7	8.5	8.2	7.9	8.2	7.9	8.5	9.3	9.5	9.8	10.2	10.3
60	9.9	10.7	9.7	9.5	9.7	9.4	9.0	8.8	8.6	8.3	8.2	8.1	7.7	8.0	7.6	8.0	9.2	9.3	9.6	10.1	10.3
70	9.9	10.4	9.7	9.5	9.7	9.3	8.9	8.7	8.6	8.3	8.1	7.9	7.6	7.8	7.3	7.7	8.9	9.2	9.6	10.1	10.2
80	9.8	10.3	9.4	9.4	9.6	9.1	8.7	8.6	8.4	7.9	7.8	7.8	7.4	7.6	7.1	7.4	8.7	9.1	9.4	10.0	10.1
90	9.2	10.1	9.2	9.3	9.6	9.0	8.7	8.5	8.3	7.9	7.8	7.7	7.3	7.6	7.0	7.5	8.3	8.7	9.5	9.9	10.1
100	8.3	10.0	9.2	9.3	9.6	8.9	8.6	8.2	7.9	7.9	7.6	7.4	7.3	7.3	6.8	7.0	8.1	8.1	9.4	9.8	10.0

Secchi depth

(m)	12	13	13	11.5	11	9.5	15	17	17	15	16	13.5	5	11	14	15.5	12	11	10	10	11

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2003-2004**
Additional site C (Western Bays) for the period starting 14 July 2003

Temperature

Date	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003	7/10/2003	21/10/2003	19/11/2003	4/12/2003	18/12/2003	13/01/2004	26/02/2004	8/03/2004	31/03/2004	14/04/2004	10/05/2004	10/06/2004	13/07/2004	26/07/2004	24/08/2004	7/09/2004
Depth (m)																					
0	11.86	11.43	11.56	11.31	11.32	11.85	13.29	15.10	15.79	17.00	20.17	16.90	18.43	16.37	15.41	14.98	13.16	11.58	11.51	10.97	11.14
10	11.80	11.36	11.26	11.21	11.13	11.24	11.93	13.84	15.29	16.33	18.89	16.69	17.02	16.35	15.18	14.80	13.08	11.61	11.32	10.94	10.73
20	11.80	11.34	11.25	11.14	11.09	11.17	11.62	13.76	14.31	15.26	17.11	16.34	16.45	16.35	15.15	14.76	13.07	11.61	11.30	10.90	10.71
30	11.80	11.32	11.25	11.14	11.08	11.14	11.52	13.63	12.99	13.46	13.74	14.66	15.33	15.95	15.15	14.75	13.07	11.61	11.31	10.90	10.71
40	11.80	11.31	11.25	11.14	11.08	11.14	11.50	11.91	12.03	12.88	12.25	12.56	13.64	13.21	15.14	14.73	13.07	11.60	11.31	10.89	10.70
50	11.80	11.31	11.25	11.14	11.07	11.13	11.46	11.42	11.43	11.64	11.57	11.63	11.64	11.68	12.68	12.57	12.80	11.61	11.30	10.90	10.70
60	11.80	11.31	11.25	11.14	11.07	11.13	11.38	11.31	11.30	11.31	11.36	11.53	11.48	11.45	11.76	11.73	11.68	11.60	11.30	10.89	10.70
70	11.80	11.31	11.25	11.14	11.07	11.12	11.21	11.27	11.28	11.26	11.28	11.39	11.37	11.34	11.54	11.48	11.44	11.61	11.30	10.89	10.70
80	11.79	11.31	11.25	11.14	11.07	1.10	11.13	11.20	11.25	11.22	11.25	11.31	11.35	11.32	11.37	11.39	11.37	11.58	11.30	10.89	10.70
90	11.60	11.29	11.25	11.14	11.07	11.04	11.07	11.14	11.21	11.19	11.21	11.26	11.33	11.29	11.30	11.32	11.33	11.61	11.30	10.89	10.70
100	11.28	11.27	11.24	11.14	11.07	11.03	11.07	11.11	11.19	11.12	11.19	11.23	11.32	11.25	11.29	11.31	11.32	11.61	11.30	10.89	10.70

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.3	10.7	10.3	10.4	10.4	11.4	10.1	9.8	9.5	9.2	9.2	9.3	9.3	9.4	10.4	10.3	10.6	10.6	11.0	10.4	10.7
10	10.3	10.8	10.3	10.3	10.4	11.0	10.1	9.9	9.9	9.1	9.2	9.1	9.0	9.2	9.5	9.8	10.1	10.6	10.5	10.4	10.4
20	10.1	10.3	10.1	10.1	10.2	10.8	9.9	9.9	9.5	9.2	9.1	9.2	9.1	9.0	9.1	9.7	9.9	10.6	10.2	10.3	10.4
30	10.1	10.0	9.9	9.9	10.0	10.1	9.6	9.6	9.3	9.1	8.8	8.6	8.6	8.9	8.9	9.4	9.7	10.3	9.9	10.2	10.4
40	10.0	10.0	9.8	9.7	9.9	9.7	9.4	9.4	9.0	9.1	8.8	8.4	8.4	8.3	8.7	9.2	9.6	9.9	9.8	10.1	10.3
50	9.9	9.9	9.6	9.6	9.7	9.7	9.3	9.2	8.8	8.8	8.5	8.2	8.0	8.0	8.2	8.7	9.3	9.6	9.6	10.1	10.2
60	9.8	9.6	9.6	9.5	9.6	9.5	9.2	9.0	8.5	8.5	8.2	8.0	7.9	8.0	7.8	8.2	8.6	9.5	9.5	10.1	10.2
70	9.8	9.5	9.5	9.4	9.5	9.4	9.1	8.8	8.5	8.3	8.1	7.9	7.8	7.9	7.5	8.0	8.2	9.4	9.5	10.0	10.1
80	9.7	9.5	9.5	9.4	9.5	9.3	8.8	8.8	8.3	8.2	7.9	7.8	7.8	7.8	7.4	7.8	8.0	9.3	9.4	10.0	10.0
90	9.6	9.1	9.4	9.3	9.4	9.2	8.7	8.6	8.4	7.9	7.8	7.8	7.7	7.7	7.3	7.6	7.9	9.2	9.2	9.9	10.0
100	8.8	8.8	9.0	9.3	9.4	9.1	8.7	8.5	8.3	7.9	7.7	7.6	7.7	7.5	7.3	7.5	7.8	9.1	9.3	9.9	10.0

Secchi depth

(m)	14	12	14.5	13	12	12.5	12	17.2	17	19	17.5	14	13	12.5	16.5	16	14	12.5	11	10	12

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2002-2003**

Mid-Lake site A for the period starting 1 July 2002

Temperature

Date	1/07/2002	17/07/2002	31/07/2002	29/08/2002	18/09/2002	9/10/2002	13/11/2002	28/11/2002	18/12/2002	30/01/2003	13/02/2003	17/03/2003	3/04/2003	28/04/2003	15/05/2003	12/06/2003	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003
Depth (m)																					
0	12.13	11.44	11.20	11.10	11.38	11.60	12.58	14.12	15.00	17.84	19.31	18.55	19.05	16.76	15.67	13.59	11.85	11.38	11.25	11.23	11.13
10	12.12	11.44	11.20	10.90	11.33	11.60	12.55	14.02	14.78	17.59	19.19	18.43	18.70	16.73	15.57	13.56	11.86	11.38	11.24	11.17	11.13
20	12.11	11.44	11.20	10.90	11.28	11.40	12.50	12.91	14.48	17.08	18.10	18.37	18.59	16.73	15.56	13.55	11.86	11.38	11.24	11.12	11.11
30	12.11	11.44	11.20	10.80	11.02	11.30	12.38	12.41	14.26	16.13	15.50	16.77	17.02	16.72	15.57	13.55	11.86	11.38	11.24	11.11	11.06
40	12.11	11.44	11.20	10.90	10.97	11.30	12.16	11.98	12.67	12.69	12.85	13.44	13.31	12.80	15.53	12.22	11.86	11.38	11.24	11.11	11.06
50	12.11	11.44	11.20	10.90	10.96	11.20	12.00	11.54	11.87	12.03	12.14	12.03	12.30	11.96	12.20	11.82	11.86	11.38	11.24	11.11	11.06
60	12.10	11.44	11.20	10.80	10.94	11.20	11.72	11.22	11.64	11.70	11.68	11.60	11.81	11.62	11.61	11.52	11.86	11.38	11.24	11.11	11.06
70	12.10	11.44	11.20	10.80	10.93	11.20	11.51	11.09	11.31	11.41	11.33	11.39	11.52	11.34	11.36	11.38	11.86	11.38	11.24	11.10	11.06
80	11.97	11.44	11.20	10.90	10.92	11.10	11.32	10.98	11.17	11.25	11.25	11.27	11.31	11.27	11.27	11.27	11.35	11.38	11.24	11.00	11.06
90	11.49	11.43	11.20	10.90	10.91	11.10	11.13	10.95	11.06	11.15	11.16	11.16	11.20	11.17	11.22	11.21	11.31	11.38	11.24	11.09	11.06
100	11.39	11.41	11.20	10.90	10.90	11.10	11.05	10.92	11.04	11.11	11.10	11.13	11.18	11.15	11.20	11.20	11.27	11.35	11.24	11.09	11.06
110	11.32	11.37	11.20	10.90	10.89	11.00	11.05	10.90	11.04	11.09	11.08	11.10	11.13	11.13	11.16	11.17	11.24	11.34	11.23	11.09	11.06
120	11.29	11.32	11.20	10.90	10.87	11.00	11.01	10.87	11.00	11.06	11.06	11.09	11.13	11.13	11.15	11.15	11.22	11.32	11.22	11.09	11.06
130	11.25	11.27	11.20	10.90	10.85	10.90	10.99	10.85	10.98	11.04	11.04	11.08	11.09	11.10	11.12	11.12	11.21	11.27	11.22	11.08	11.06
140	11.23	11.26	11.20	10.80	10.83	10.90	10.97	10.83	10.97	11.03	11.03	11.09	11.09	11.09	11.12	11.11	11.21	11.26	11.21	11.08	11.06
150	11.23	11.26	11.20	10.80	10.81	10.90	10.96	10.82	10.97	11.03	11.03	11.07	11.08	11.09	11.11	11.11	11.20	11.22	11.20	11.08	11.07

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.3	10.4	9.7	10.5	10.5	10.3	10.2	9.8	9.6	9.1	8.9	9.0	8.8	9.2	9.5	10.0	10.3	10.6	10.5	10.5	10.5
10	10.3	10.7	9.5	10.4	10.7	10.3	10.2	10.0	9.7	9.1	8.9	8.9	8.8	9.2	9.2	9.7	10.2	10.4	10.5	10.5	10.6
20	10.3	10.7	9.4	10.3	10.6	10.2	10.2	10.1	9.6	9.2	8.9	8.8	8.6	9.1	9.3	9.4	10.2	10.2	10.3	10.4	10.4
30	10.2	10.7	9.4	10.3	10.5	10.2	10.2	10.1	9.6	9.1	8.8	8.5	8.3	8.9	9.2	9.3	10.2	9.9	10.1	10.3	10.1
40	10.2	10.6	9.4	10.2	10.4	10.2	10.1	9.7	9.5	9.2	8.8	8.4	8.0	8.4	9.1	9.0	10.1	9.9	10.0	10.0	9.8
50	10.2	10.6	9.4	10.2	10.3	10.1	10.1	9.7	9.3	9.1	8.6	8.2	7.8	8.2	8.2	8.2	10.0	9.0	9.9	9.9	9.8
60	10.1	10.5	9.4	10.2	10.2	10.1	10.0	9.5	9.1	8.9	8.4	8.0	7.7	8.1	8.1	8.1	9.9	8.8	9.8	9.7	9.6
70	10.1	10.5	9.3	10.1	10.2	10.0	9.9	9.5	8.8	8.8	8.4	7.8	7.6	8.0	8.0	8.0	9.9	8.7	9.8	9.6	9.6
80	10.0	10.3	9.4	10.1	10.2	10.1	9.7	9.4	8.7	8.7	8.3	7.8	7.5	7.9	7.8	7.9	8.7	8.6	9.7	9.5	9.5
90	9.7	10.3	9.4	10.1	10.1	10.1	9.5	9.3	8.7	8.7	8.2	7.8	7.4	7.8	7.5	7.6	8.5	8.5	9.7	9.5	9.5
100	8.6	10.1	9.4	10.1	10.0	9.8	9.4	9.1	8.6	8.6	8.1	7.7	7.3	7.7	7.2	7.5	8.2	8.4	9.6	9.5	9.5
110	8.3	9.8	9.3	9.9	9.9	9.8	9.4	9.1	8.4	8.4	8.0	7.6	7.2	7.6	7.1	7.4	8.2	8.1	9.6	9.4	9.5
120	8.1	8.8	9.3	9.9	9.9	9.8	9.3	9.0	8.3	8.3	7.8	7.4	7.0	7.5	7.1	7.2	8.0	8.0	9.5	9.4	9.5
130	8.0	8.5	9.3	9.9	9.9	9.7	9.2	9.0	8.3	8.2	7.7	7.2	6.9	7.4	7.0	7.0	8.0	7.9	9.5	9.4	9.4
140	7.8	8.1	9.3	9.9	9.9	9.4	9.0	8.8	8.2	8.0	7.4	7.1	6.8	7.2	6.8	6.7	7.8	7.8	9.5	9.3	9.4
150	7.8	8.1	9.3	9.8	9.8	9.4	8.9	8.7	8.1	7.9	7.3	6.9	6.5	6.9	6.7	6.5	7.7	7.6	9.3	9.3	9.4

Secchi depth

(m)	16	15.5	12	9.5	12	15.5	18	12.7	13.5	18	19	15	13.5	14	16.5	11	14.5	14	13.5	13	12.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2002-2003**
Additional site B (Kuratau Basin) for the period starting 1 July 2002

Temperature

Date	1/07/2002	17/07/2002	31/07/2002	29/08/2002	18/09/2002	9/10/2002	13/11/2002	28/11/2002	18/12/2002	30/01/2003	13/02/2003	17/03/2003	3/04/2003	28/04/2003	15/05/2003	12/06/2003	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003
Depth (m)																					
0	12.13	11.48	11.3	11	11.08	11.70	11.98	13.82	15.16	16.76	18.87	18.74	19.09	16.73	15.79	13.24	11.82	11.32	11.38	11.36	11.13
10	12.09	11.49	11.1	10.8	11.05	11.30	11.94	13.67	15.08	16.75	18.46	18.54	18.82	16.66	15.49	13.02	11.8	11.29	11.22	11.17	11.11
20	12.09	11.48	11.1	10.8	11.03	11.20	11.9	12.79	13.86	16.53	17.71	18.45	18.49	16.62	15.47	12.79	11.79	11.29	11.22	11.14	11.07
30	12.09	11.48	11.1	10.8	11.03	11.20	11.8	12.31	13.4	14.33	16.2	14.87	15.32	16.2	15.41	11.83	11.79	11.29	11.21	11.13	11.03
40	12.08	11.48	11.1	10.8	11.02	11.20	11.68	11.75	13.18	12.98	13.89	12.03	13.25	13.46	13.2	11.62	11.79	11.29	11.21	11.13	11.02
50	11.97	11.49	11.1	10.8	10.91	11.20	11.44	11.44	12.91	12.1	12.59	12.06	12	12.28	12.09	11.51	11.79	11.29	11.21	11.13	11.02
60	11.93	11.49	11.1	10.8	10.9	11.10	11.26	11.27	12.27	11.69	11.75	11.58	11.58	11.7	11.71	11.38	11.78	11.29	11.21	11.13	11.01
70	11.87	11.48	11.1	10.8	10.89	11.10	11.11	11.17	11.58	11.37	11.4	11.36	11.35	11.4	11.4	11.29	11.78	11.29	11.21	11.12	11.01
80	11.78	11.48	11.1	10.8	10.89	11.00	11	11.03	11.51	11.23	11.3	11.24	11.25	11.25	11.28	11.27	11.77	11.29	11.16	11.12	11.01
90	11.37	11.46	11.1	10.7	10.87	11.00	10.93	10.96	11.39	11.14	11.17	11.13	11.15	11.18	11.21	11.26	11.35	11.29	11.04	11.11	11.01
100	11.28	11.3	11	10.7	10.85	11.00	10.91	10.92	11.2	11.09	11.12	11.13	11.12	11.12	11.18	11.25	11.27	11.29	10.91	11.08	11.01
110			10.7	10.7		10.90															

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.3	10.4	9.9	10.4	10.4	10.4	10.3	9.9	9.6	9.3	9.4	8.9	8.9	9.7	9.4	10	10.7	10.9	10.8	10.6	10.6
10	10.3	10.8	9.7	10.3	10.5	10.5	10.3	10	9.7	9.3	9.3	8.9	8.8	9.6	9.4	10	10.5	11	10.6	10.6	10.5
20	10.2	10.6	9.6	10.3	10.5	10.3	10.3	9.9	9.5	9.2	9.3	8.8	8.5	9.5	9.3	9.6	10.3	11.3	10.4	10.2	10.2
30	10.2	10.6	9.6	10.2	10.5	10.3	103	9.9	9.6	9.2	9.2	8.2	8.1	9.4	8.8	9.2	10.2	11.2	10.1	9.9	10.1
40	10.1	10.5	9.6	10.2	10.4	10.2	10.2	9.5	9.4	9.1	9	8.2	8	8.8	8.5	8.8	10.1	11.2	9.9	9.8	9.9
50	10.1	10.5	9.6	10.1	10.3	10.1	10.1	9.5	9.4	8.9	8.8	8	7.7	8.3	7.9	8.5	10	10.9	9.8	9.6	9.8
60	9.8	10.4	9.6	10.1	10.2	10.1	9.9	9.4	9.2	8.6	8.6	7.8	7.6	8.3	7.8	8.3	9.9	10.7	9.7	9.5	9.7
70	9.7	10.4	9.5	10	10.1	9.8	9.8	9.4	9	8.4	8.4	7.7	7.4	8.2	7.7	8.2	9.9	10.4	9.7	9.5	9.7
80	9.5	10.3	9.5	10	10.1	9.7	9.7	9	8.6	8.3	8.3	7.3	7.3	8	7.7	8.1	9.8	10.3	9.4	9.4	9.6
90	9.1	10.3	9.5	10	10	9.7	9.5	9	8.6	8.2	8	7.2	7.1	7.7	7.5	7.7	9.2	10.1	9.2	9.3	9.6
100	8.7	9.8	9.6	9.9	9.9	9.7	9.2	9	8.4	7.7	7.6	7	7	7.6	7.1	7.5	8.3	10	9.2	9.3	9.6
110			9.2	9.8		9.4															

Secchi depth

(m)	16	12.5	10.5	8	11	16	14	12.7	14	18	11	14	12.8	13.5	15.5	12	12	13	13	11.5	11

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2002-2003**
Additional site C (Western Bays) for the period starting 1 July 2002

Temperature

Date	1/07/2002	17/07/2002	31/07/2002	29/08/2002	18/09/2002	9/10/2002	13/11/2002	28/11/2002	18/12/2002	30/01/2003	13/02/2003	17/03/2003	3/04/2003	28/04/2003	15/05/2003	12/06/2003	14/07/2003	31/07/2003	14/08/2003	26/08/2003	8/09/2003
Depth (m)																					
0	12.22	11.52	11.6	11.4	11.24	12.10	12.56	13.98	15.12	17.61	19.58	19.04	18.15	17.1	15.8	13.65	11.86	11.43	11.56	11.31	11.32
10	12.15	11.5	11.2	10.9	11.23	11.30	12.5	13.45	14.21	17.49	18.95	18.45	18.58	16.82	15.54	13.62	11.8	11.36	11.26	11.21	11.13
20	12.14	11.49	11.2	10.9	11.16	11.30	12.38	12.63	13.31	17.48	17.41	18.29	18.3	16.77	15.52	13.59	11.8	11.34	11.25	11.14	11.09
30	12.14	11.49	11.2	10.8	11.06	11.20	12.33	12.42	12.73	14.31	14.19	14.81	14.61	16.76	15.51	13.59	11.8	11.32	11.25	11.14	11.08
40	12.13	11.49	11.2	10.8	11.02	11.20	11.75	12.2	11.98	12.36	12.79	12.88	12.73	13.62	13.07	13.59	11.8	11.31	11.25	11.14	11.08
50	12.13	11.49	11.2	10.8	11.02	11.20	11.28	11.98	11.53	12	11.98	11.86	12.1	12.08	12.14	13.54	11.8	11.31	11.25	11.14	11.07
60	11.92	11.49	11.2	10.8	11	11.10	11.12	11.37	11.33	11.61	11.68	11.49	11.71	11.56	11.71	13.28	11.8	11.31	11.25	11.14	11.07
70	11.55	11.49	11.2	10.8	10.99	11.10	11.08	11.21	11.15	11.29	11.3	11.35	11.37	11.35	11.4	11.8	11.8	11.31	11.25	11.14	11.07
80	11.5	11.49	11.2	10.8	10.95	11.10	11.03	11.04	11.12	11.19	11.19	11.25	11.22	11.24	11.27	11.45	11.79	11.31	11.25	11.14	11.07
90	11.47	11.49	11.2	10.8	10.94	11.00	11	10.98	11.1	11.11	11.15	11.2	11.18	11.18	11.22	11.35	11.6	11.29	11.25	11.14	11.07
100	11.45	11.49	11.2	10.8	10.92	11.00	10.97	10.96	11.08	11.08	11.13	11.2	11.15	11.15	11.17	11.23	11.28	11.27	11.24	11.14	11.07

Dissolved Oxygen (g m^{-3})

Depth (m)																					
0	10.4	10.5	9.7	10.3	10.5	10.4	10.2	9.9	9.6	9.1	9.5	9.9	8.9	9.4	9.3	10	10.3	10.7	10.3	10.4	10.4
10	10.4	10.8	9.5	10.2	10.7	10.4	10.3	9.7	9.6	9	9.3	9.7	8.8	9.2	9.1	9.6	10.3	10.8	10.3	10.3	10.4
20	10.4	10.8	9.5	10.2	10.7	10.4	10.3	9.9	9.7	9	9.3	9	8.8	9.2	9	9.3	10.1	10.3	10.1	10.1	10.2
30	10.3	10.7	9.4	10.1	10.6	10.4	10.2	9.9	9.6	8.7	9	8.4	8.3	9	8.8	9.1	10.1	10	9.9	9.9	10
40	10.3	10.5	9.4	10	10.5	10.3	10.1	9.7	9.5	8.7	9	8.4	8.1	8.5	8.3	9.3	10	10	9.8	9.7	9.9
50	10.2	10.5	9.4	10	10.4	10	9.9	9.7	9.2	8.6	8.7	8.1	7.9	8.2	7.8	9.2	9.9	9.9	9.6	9.6	9.7
60	10	10.5	9.4	10	10.4	10	9.7	9.6	9.1	8.5	8.5	8.1	7.9	8.2	7.8	9.9	9.8	9.6	9.6	9.5	9.6
70	9.6	10.5	9.4	9.9	10.3	9.9	9.7	9.5	9	8.4	8.4	7.9	7.8	8	7.7	9.7	9.8	9.5	9.5	9.4	9.5
80	8.8	10.5	9.3	9.9	10.2	9.9	9.5	9	8.8	8.3	8.3	7.6	7.7	8	7.5	9.4	9.7	9.5	9.5	9.4	9.5
90	8.7	10.4	9.3	9.9	10.1	9.8	9.5	9.1	8.7	8.1	8.3	7.5	7.6	7.9	7.3	9.2	9.6	9.1	9.4	9.3	9.4
100	8.6	10.2	9.3	10	10	9.6	9.3	9.1	8.7	8	8.1	7.3	7.4	7.8	7.2	9.1	8.8	8.8	9	9.3	9.4

Secchi depth

(m)	14	12.5	12	8	12	19	16	15.5	13.5	18.5	19	15	14.5	14.5	17	11	14	12	14.5	13	12

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2001-2002**

Mid-Lake site A for the period starting 2 July 2001

Temperature

Date	2/07/01	25/07/01	13/08/01	3/09/01	25/09/01	25/10/01	12/11/01	10/12/01	20/12/01	8/01/02	22/01/02	6/03/02	4/04/02	22/04/02	5/05/02	19/06/02	1/07/02	17/07/02	31/07/02	29/08/02	18/09/02	9/10/02
Depth (m)																						
0	12.11	11.26	11.15	10.96	11.58	12.97	14.23	15.47	17.92	18.37	19.4	18.69	17.45	17.05	15.51	12.57	12.13	11.44	11.2	11.1	11.38	11.60
10	12.04	11.26	11.12	10.98	11.57	12.91	14.16	15.51	16.60	18.07	18.8	18.69	17.38	16.64	15.54	12.57	12.12	11.44	11.2	10.9	11.33	11.60
20	12.00	11.26	11.12	10.95	11.56	12.90	13.37	15.52	15.46	17.62	18.05	18.68	17.18	16.61	15.52	12.57	12.11	11.44	11.2	10.9	11.28	11.40
30	11.99	11.26	11.11	10.94	11.52	12.89	12.85	14.52	13.79	13.5	14.8	15.3	16.83	16.56	15.5	12.56	12.11	11.44	11.2	10.8	11.02	11.30
40	11.98	11.26	11.11	10.94	11.04	12.00	11.87	13.01	12.41	12.43	13.1	12.42	12.9	13.35	15.39	12.56	12.11	11.44	11.2	10.9	10.97	11.30
50	11.98	11.26	11.11	10.94	10.96	11.50	11.57	11.80	11.70	11.61	12.06	11.73	12.09	11.93	11.92	12.56	12.11	11.44	11.2	10.9	10.96	11.20
60	11.95	11.26	11.10	10.94	10.92	11.13	11.24	11.27	11.32	11.38	11.52	11.43	11.51	11.53	11.49	12.53	12.1	11.44	11.2	10.8	10.94	11.20
70	11.76	11.26	11.09	10.94	10.91	11.01	11.13	11.13	11.22	11.24	11.25	11.27	11.3	11.3	11.33	11.98	12.1	11.44	11.2	10.8	10.93	11.20
80	11.51	11.26	11.08	10.92	10.90	10.96	11.03	11.05	11.16	11.16	11.17	11.2	11.24	11.25	11.27	11.35	11.97	11.44	11.2	10.9	10.92	11.10
90	11.45	11.26	11.08	10.91	10.90	10.95	11.01	11.02	11.12	11.13	11.15	11.17	11.19	11.22	11.28	11.27	11.49	11.43	11.2	10.9	10.91	11.10
100	11.41	11.26	11.08	10.91	10.90	10.94	10.99	11.00	11.08	11.12	11.14	11.16	11.17	11.2	11.38	11.25	11.39	11.41	11.2	10.9	10.9	11.10
110	11.39	11.26	11.08	10.91	10.90	10.92	10.97	10.99	11.07	11.1	11.13	11.13	11.14	11.18	11.27	11.24	11.32	11.37	11.2	10.9	10.89	11.00
120	11.36	11.26	11.08	10.91	10.89	10.92	10.95	10.97	11.04	11.1	11.12	11.13	11.14	11.17	11.26	11.21	11.29	11.32	11.2	10.9	10.87	11.00
130	11.35	11.26	11.07	10.90	10.89	10.91	10.94	10.96	11.04	11.09	11.1	11.13	11.13	11.15	11.24	11.2	11.25	11.27	11.2	10.9	10.85	10.90
140	11.34	11.26	11.07	10.90	10.89	10.90	10.94	10.96	11.04	11.08	11.1	11.13	11.13	11.14	11.23	11.19	11.23	11.26	11.2	10.8	10.83	10.90
150	11.33	11.26	11.07	10.90	10.89	10.90	10.94	10.96	11.03	11.08	11.1	11.12	11.13	11.14	11.19	11.9	11.23	11.26	11.2	10.8	10.81	10.90

Dissolved Oxygen (g m^{-3})

Depth (m)																						
0	9.2	10.2	9.6	10.6	10.4	9.9	9.5	9.4	9.1	9.1	9.0	8.7	8.8	9.4	10.5	10.2	10.3	10.4	9.7	10.5	10.5	10.3
10	9.1	10.5	9.6	10.7	10.4	9.9	9.8	9.5	8.9	9.0	8.9	8.7	8.9	9.3	9.5	10.2	10.3	10.7	9.5	10.4	10.7	10.3
20	9.4	9.4	9.6	10.6	10.4	10.0	9.4	9.5	9.0	9.0	9.1	8.7	8.8	9.3	9.5	10.2	10.3	10.7	9.4	10.3	10.6	10.2
30	9.8	9.2	9.6	10.6	10.4	10.1	9.4	9.1	8.8	9.0	9.1	8.4	8.7	9.2	9.4	10.2	10.2	10.7	9.4	10.3	10.5	10.2
40	9.8	9.1	9.6	10.6	10.0	9.7	8.9	9.1	8.6	8.8	9.0	8.4	8.3	8.7	9.3	10.1	10.2	10.6	9.4	10.2	10.4	10.2
50	9.6	8.9	9.6	10.6	9.9	9.5	9.0	8.7	8.6	8.7	8.7	8.2	8.2	8.3	8.6	10.1	10.2	10.6	9.4	10.2	10.3	10.1
60	9.4	8.9	9.5	10.5	9.8	9.3	8.7	8.6	8.5	8.6	8.6	8.2	8.1	8.1	8.3	10.0	10.1	10.5	9.4	10.2	10.2	10.1
70	9.5	9.0	9.4	10.4	9.7	9.3	8.8	8.7	8.5	8.6	8.5	8.2	8.0	8.0	8.2	9.6	10.1	10.5	9.3	10.1	10.2	10.0
80	7.7	8.9	9.4	10.4	9.7	9.2	8.6	8.4	8.5	8.6	8.4	8.1	7.9	7.9	8.2	8.5	10.0	10.3	9.4	10.1	10.2	10.1
90	7.8	8.9	9.4	10.4	9.6	9.5	8.8	8.5	8.5	8.6	8.2	8.1	7.8	7.8	8.0	8.3	9.7	10.3	9.4	10.1	10.1	10.1
100	7.5	8.6	9.3	10.4	9.6	9.2	8.6	8.4	8.3	8.5	8.1	8.0	7.8	7.8	7.5	8.2	8.6	10.1	9.4	10.1	10.0	9.8
110	7.4	8.7	9.3	10.4	9.6	9.2	8.6	8.4	8.3	8.4	8.1	8.0	7.7	7.7	7.3	8.1	8.3	9.8	9.3	9.9	9.9	9.8
120	6.9	8.5	9.3	10.3	9.5	9.0	8.4	8.4	8.3	8.2	8.1	7.9	7.7	7.6	7.2	8.0	8.1	8.8	9.3	9.9	9.9	9.8
130	6.9	8.5	9.3	10.2	9.5	9.0	8.4	8.4	8.3	8.2	8.2	7.9	7.6	7.5	7.3	7.9	8.0	8.5	9.3	9.9	9.9	9.7
140	6.8	8.3	9.2	10.2	9.5	8.6	8.2	8.2	8.1	8.0	8.1	7.8	7.1	7.8	7.3	7.8	7.8	8.1	9.3	9.9	9.9	9.4
150	6.4	8.2	9.2	10.2	9.3	8.5	8.1	8.1	7.9	7.8	7.9	7.6	7.0	7.2	7.3	7.7	7.8	8.1	9.3	9.8	9.8	9.4

Secchi depth

(m)	12	14.5	13.5	17.5	11	14.5	15.5	16	13	13	15	14.5	19	22	16.4	17	16	15.5	12	9.5	12	15.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2001-2002**
Additional site B (Kuratau Basin) for the period starting 8 January 2002 on

Temperature

Date	8/01/2002	22/01/2002	6/03/2002	4/04/2002	22/04/2002	5/05/2002	19/06/2002	1/07/2002	17/07/2002	31/07/2002	29/08/2002	18/09/2002
Depth (m)												
0	18.1	18.8	18.64	17.38	16.84	15.12	12.45	12.13	11.48	11.3	11	11.08
10	17.55	18.45	18.58	17.35	16.61	15.14	12.44	12.09	11.49	11.1	10.8	11.05
20	15.72	17.4	18.56	17.1	16.6	15.05	12.44	12.09	11.48	11.1	10.8	11.03
30	13.74	13.9	15.07	16.74	16.4	14.75	12.43	12.09	11.48	11.1	10.8	11.03
40	12.62	12.73	13.08	14.3	13.4	14.4	12.24	12.08	11.48	11.1	10.8	11.02
50	11.92	11.98	11.91	12.77	12.12	14.07	12.11	11.97	11.49	11.1	10.8	10.91
60	11.31	11.41	11.5	12.03	11.53	12.96	11.73	11.93	11.49	11.1	10.8	10.9
70	11.21	11.25	11.24	11.5	11.32	12.2	11.49	11.87	11.48	11.1	10.8	10.89
80	11.15	11.19	11.21	11.29	11.24	11.97	11.38	11.78	11.48	11.1	10.8	10.89
90	11.1	11.13	11.15	11.2	11.18	11.69	11.3	11.37	11.46	11.1	10.7	10.87
100	11.1	11.12	11.12	11.19	11.15	11.39	11.22	11.28	11.3	11	10.7	10.85
110										10.7	10.7	

Dissolved Oxygen (g m^{-3})

Depth (m)												
0	8.7	8.8	9.3	9.3	9.3	10.9	10.4	10.3	10.4	9.9	10.4	10.4
10	8.6	9	9.1	9.2	9.3	9.5	10.3	10.3	10.8	9.7	10.3	10.5
20	8.8	9	9.1	9.2	9.2	9.4	10.2	10.2	10.6	9.6	10.3	10.5
30	8.8	8.9	8.6	9.1	9.2	9.3	10.2	10.2	10.6	9.6	10.2	10.5
40	8.7	8.7	8.7	8.9	8.5	9.1	10.1	10.1	10.5	9.6	10.2	10.4
50	8.7	8.4	8.5	8.6	8.2	9	10	10.1	10.5	9.6	10.1	10.3
60	8.7	8.3	8.4	8.4	8	8.6	9	9.8	10.4	9.6	10.1	10.2
70	8.7	8.3	8.3	8.3	7.9	8.1	8.7	9.7	10.4	9.5	10	10.1
80	8.7	8.2	8.1	8.1	7.8	7.9	8.4	9.5	10.3	9.5	10	10.1
90	8.2	8.1	7.9	7.7	7.7	7.8	8.2	9.1	10.3	9.5	10	10
100	8	7.6	7.5	7.7	7.5	7.7	7.8	8.7	9.8	9.6	9.9	9.9
110	8				6.2					9.2	9.8	

Secchi depth

Depth (m)	13.5	12	14.5	19.5	19	13.2	15	16	12.5	10.5	8	11

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2001-2002**
Additional site C (Western Bays) for the period starting 8 January 2002 on

Temperature

Date	8/01/2002	22/01/2002	6/03/2002	4/04/2002	22/04/2002	5/05/2002	19/06/2002	1/07/2002	17/07/2002	31/07/2002	29/08/2002	18/09/2002	9/10/2002
Depth (m)													
0	18.72	18.82	18.68	17.47	16.88	15.6	12.58	12.22	11.52	11.6	11.4	11.24	12.10
10	17.41	18.46	18.47	17.24	11.63	15.64	12.56	12.15	11.5	11.2	10.9	11.23	11.30
20	16.95	18.21	18.32	17.16	16.58	15.64	12.56	12.14	11.49	11.2	10.9	11.16	11.30
30	14	13.77	15.9	17.12	16.5	15.61	12.56	12.14	11.49	11.2	10.8	11.06	11.20
40	13.14	12.01	12.98	13.17	13.02	12.26	12.56	12.13	11.49	11.2	10.8	11.02	11.20
50	11.97	11.5	12.13	12.11	11.87	11.57	12.56	12.13	11.49	11.2	10.8	11.02	11.20
60	11.44	11.26	11.59	11.57	11.47	11.37	11.9	11.92	11.49	11.2	10.8	11	11.10
70	11.26	11.17	11.36	11.38	11.32	11.29	11.36	11.55	11.49	11.2	10.8	10.99	11.10
80	11.18	11.16	11.25	11.32	11.26	11.24	11.28	11.5	11.49	11.2	10.8	10.95	11.10
90	11.15	11.14	11.18	11.21	11.23	11.21	11.23	11.47	11.49	11.2	10.8	10.94	11.00
100	11.12	11.11	11.18	11.19	11.19	11.19	11.22	11.45	11.49	11.2	10.8	10.92	11.00
110	11.11	11.1			11.16	11.15				11.2	10.8		10.90
120										11.2	10.8		10.90

Dissolved Oxygen (g m^{-3})

Depth (m)													
0	8.6	8.9	9.3	9.4	9.3	10.6	10.3	10.4	10.5	9.7	10.3	10.5	10.4
10	8.4	8.9	9	9.1	9.2	9.5	10.2	10.4	10.8	9.5	10.2	10.7	10.4
20	8.9	8.9	9	9.1	9.2	9.5	10.2	10.4	10.8	9.5	10.2	10.7	10.4
30	8.6	8.9	8.8	9.1	9.1	9.4	10.1	10.3	10.7	9.4	10.1	10.6	10.4
40	8.6	8.5	8.6	8.6	8.5	8.9	10.1	10.3	10.5	9.4	10	10.5	10.3
50	8.5	8.2	8.5	8.5	8.1	8.6	10	10.2	10.5	9.4	10	10.4	10
60	8.6	8.1	8.5	8.2	7.9	8.3	9.7	10	10.5	9.4	10	10.4	10
70	8.6	8.1	8.2	8.2	7.8	8.2	9.1	9.6	10.5	9.4	9.9	10.3	9.9
80	8.7	8.1	8.1	8	7.7	8	8.4	8.8	10.5	9.3	9.9	10.2	9.9
90	8.6	8.1	8.1	7.9	7.7	7.9	8	8.7	10.4	9.3	9.9	10.1	9.8
100	8.7	8.1	8.1	7.9	7.6	7.8	7.7	8.6	10.2	9.3	10	10	9.6
110	8.5	7.9			7.6	7.7				9.3	10		9.7
120	8.5	7.7								9.1	9.9		9.6

Secchi depth

Depth (m)	14.5	15.5	16	19	18.5	15.6	16	14	12.5	12	8	12	19

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **2000-2001**

For the period starting 11 July 2000

Temperature

Date	11-7-00	04-8-00	21-8-00	11-9-00	28-9-00	25-10-00	13-11-00	06-12-00	03-1-01	15-1-01	20-2-01	01-3-01	19-3-01	09-4-01	11-4-01	10-5-01	29-5-01	02-7-01	25-7-01	13-8-01
Depth (m)																				
0	11.87	11.32	11.19	11.80	12.47	14.04	13.27	15.73	18.16	18.98	20.47	20.87	19.01	16.99	16.99	15.78	13.62	12.11	11.26	11.15
10	11.87	11.32	11.15	11.46	11.52	13.03	13.09	15.06	17.37	18.51	19.37	20.71	19.05	16.87	16.99	15.78	13.74	12.04	11.26	11.12
20	11.86	11.32	11.14	11.33	11.36	11.99	12.98	14.15	15.46	14.79	18.08	18.98	19.06	16.78	16.97	15.78	13.78	12.00	11.26	11.12
30	11.86	11.33	11.14	11.30	11.33	11.83	12.80	13.31	13.61	13.63	16.06	15.95	16.46	15.82	16.84	15.73	13.79	11.99	11.26	11.11
40	11.86	11.33	11.14	11.27	11.31	11.60	12.36	12.49	12.73	12.81	13.39	13.36	13.05	13.13	13.87	13.19	13.80	11.98	11.26	11.11
50	11.86	11.33	11.14	11.22	11.30	11.49	12.10	12.16	12.21	12.27	12.67	12.58	12.42	12.35	12.68	12.42	13.80	11.98	11.26	11.11
60	11.64	11.33	11.15	11.18	11.27	11.42	11.69	11.78	11.76	11.87	12.01	12.01	11.84	11.81	11.89	11.90	11.92	11.95	11.26	11.10
70	11.42	11.33	11.15	11.15	11.24	11.39	11.41	11.53	11.64	11.67	11.77	11.79	11.67	11.67	11.69	11.69	11.61	11.76	11.26	11.09
80	11.31	11.33	11.15	11.14	11.20	11.38	11.29	11.40	11.47	11.55	11.56	11.63	11.55	11.54	11.54	11.52	11.54	11.51	11.26	11.08
90	11.22	11.33	11.15	11.13	11.17	11.33	11.26	11.36	11.43	11.46	11.50	11.55	11.49	11.46	11.48	11.47	11.46	11.45	11.26	11.08
100	11.21	11.32	11.15	11.13	11.14	11.33	11.21	11.32	11.38	11.39	11.43	11.50	11.43	11.41	11.43	11.42	11.42	11.41	11.26	11.08
110	11.19	11.32	11.15	11.13	11.06	11.29	11.19	11.28	11.36	11.36	11.40	11.46	11.41	11.37	11.39	11.40	11.38	11.39	11.26	11.08
120	11.19	11.31	11.15	11.13	11.04	11.27	11.19	11.27	11.33	11.34	11.39	11.44	11.39	11.33	11.35	11.38	11.35	11.36	11.26	11.08
130	11.18	11.26	11.15	11.12	11.02	11.23	11.17	11.26	11.30	11.32	11.37	11.43	11.37	11.32	11.34	11.36	11.33	11.35	11.26	11.07
140	11.16	11.18	11.14	11.12	11.01	11.18	11.15	11.25	11.30	11.31	11.35	11.40	11.35	11.31	11.32	11.34	11.31	11.34	11.26	11.07
150	11.15	11.18	11.14	11.12	11.01	11.15	11.15	11.25	11.32	11.31	11.33	11.41	11.34	11.31	11.32	11.34	11.31	11.33	11.26	11.07

Dissolved Oxygen (g m^{-3})

Depth (m)																				
0	9.0	9.0	9.2	9.3	9.1	8.9	8.2	8.7	8.2	8.0	8.0	8.2	8.4	8.3	8.4	8.2	8.7	9.2	10.2	9.6
10	9.0	9.0	9.4	9.5	8.7	8.8	8.4	8.3	8.3	8.6	8.0	8.5	8.3	8.3	8.2	8.0	8.5	9.1	10.5	9.6
20	9.0	9.1	9.4	9.5	8.7	9.1	8.4	8.5	8.4	8.1	8.2	8.6	8.6	8.4	7.9	7.9	8.4	9.4	9.4	9.6
30	9.0	9.1	9.6	9.5	8.7	8.9	8.4	8.5	8.5	8.2	8.0	8.3	8.0	8.0	8.0	7.8	8.4	9.8	9.2	9.6
40	9.0	9.1	9.6	9.5	9.1	8.7	8.2	8.2	8.4	7.9	8.1	8.1	7.6	7.8	7.6	7.7	8.3	9.8	9.1	9.6
50	9.0	9.1	9.6	9.5	9.1	8.5	8.2	8.2	8.2	8.1	7.9	7.8	7.6	7.5	7.4	7.5	8.3	9.6	8.9	9.6
60	9.0	9.1	9.7	9.5	8.7	8.4	8.0	7.9	8.0	7.5	7.7	7.4	6.8	7.2	7.2	7.5	7.2	9.4	8.9	9.5
70	8.9	9.1	9.7	9.5	8.7	8.3	7.9	7.8	7.9	7.4	7.6	7.2	6.8	7.1	7.4	7.3	7.0	9.5	9.0	9.4
80	7.8	9.0	9.7	9.5	8.7	8.2	7.6	7.6	7.8	7.5	7.4	7.0	6.5	6.9	7.3	7.3	7.0	7.7	8.9	9.4
90	7.4	8.9	9.7	9.5	8.7	8.2	7.6	7.6	7.7	7.5	7.4	6.9	6.5	6.9	7.1	7.1	7.0	7.8	8.9	9.4
100	7.2	8.7	9.7	9.5	8.7	8.0	7.5	7.6	7.6	7.3	7.2	6.8	6.6	6.8	7.0	7.0	6.9	7.5	8.6	9.3
110	7.1	8.3	9.7	9.5	8.7	8.0	7.5	7.5	7.6	7.2	7.1	6.7	6.5	6.8	7.0	7.0	6.7	7.4	8.7	9.3
120	6.9	7.9	9.7	9.5	8.2	8.1	7.4	7.4	7.5	7.1	7.0	6.5	6.5	6.7	6.8	6.9	6.6	6.9	8.5	9.3
130	6.9	7.3	9.7	9.5	8.5	8.1	7.4	7.3	7.4	7.0	7.0	6.5	6.5	6.6	6.7	6.6	6.5	6.9	8.5	9.3
140	6.9	7.1	9.7	9.5	8.6	8.0	7.3	7.2	7.2	6.9	6.8	6.4	6.5	6.4	6.4	6.7	6.3	6.8	8.3	9.2
150	6.8	7.4	9.7	9.3	8.5	7.9	7.3	7.1	7.1	6.6	6.5	6.3	6.4	6.3	6.3	6.6	6.1	6.4	8.2	9.2

Secchi depth

	Depth (m)																			
	11	12	15	12	13	11	12	17	17	18	17	14.5	17	13.5	13.5	17	14.5	12	14.5	13.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **1999-2000**

For the period starting 13 July 1999

Temperature

Date	13-7-99	6-8-99	3-9-99	29-9-99	18-10-99	19-12-99	18-1-00	12-4-00	4-5-00	25-5-00	20-6-00	11-7-00	4-8-00	21-8-00	11-9-00	28-9-00	25-10-00	13-11-00	6-12-00
Depth (m)																			
0	12.0	11.8	11.8	11.5	12.8	16.56	18.63	17.41	15.82	14.22	12.28	11.87	11.32	11.19	11.80	12.47	14.04	13.27	15.73
10	12.0	11.4	11.3	11.5	12.7	16.40	18.35	17.25	15.77	14.28	12.28	11.87	11.32	11.15	11.46	11.52	13.03	13.09	15.06
20	12.0	11.4	11.2	11.5	12.4	15.96	17.22	17.21	15.76	14.31	12.28	11.86	11.32	11.14	11.33	11.36	11.99	12.98	14.15
30	12.0	11.4	11.1	11.4	11.6	15.23	14.94	16.65	15.75	14.28	12.27	11.86	11.33	11.14	11.30	11.33	11.83	12.86	13.31
40	12.0	11.3	11.1	11.2	11.4	12.16	13.29	12.55	13.64	14.22	12.26	11.86	11.33	11.14	11.27	11.31	11.60	12.36	12.49
50	12.0	11.3	11.1	11.1	11.3	11.64	11.91	11.67	12.14	12.53	12.26	11.86	11.33	11.14	11.22	11.30	11.49	12.10	12.16
60	12.0	11.3	11.0	11.1	11.1	11.35	11.45	11.39	11.56	11.56	12.21	11.85	11.33	11.15	11.18	11.27	11.42	11.69	11.78
70	12.0	11.3	11.0	11.0	11.1	11.25	11.31	11.29	11.36	11.34	11.58	11.64	11.33	11.15	11.15	11.24	11.39	11.41	11.53
80	11.4	11.3	11.0	11.0	11.0	11.18	11.21	11.23	11.24	11.23	11.32	11.42	11.33	11.15	11.14	11.20	11.38	11.29	11.40
90	11.3	11.3	11.0	11.0	11.0	11.16	11.17	11.20	11.21	11.20	11.24	11.31	11.33	11.15	11.13	11.17	11.33	11.26	11.36
100	11.2	11.2	11.0	11.0	11.0	11.14	11.14	11.17	11.17	11.15	11.17	11.22	11.32	11.15	11.13	11.14	11.33	11.21	11.32
110	11.2	11.2	11.0	11.0	11.0	11.12	11.12	11.15	11.14	11.12	11.16	11.21	11.32	11.15	11.13	11.06	11.29	11.19	11.28
120	11.2	11.1	11.0	11.0	11.0	11.10	11.09	11.13	11.12	11.10	11.14	11.19	11.31	11.15	11.13	11.04	11.27	11.19	11.27
130	11.1	11.1	11.0	11.0	11.0	11.08	11.08	11.11	11.10	11.09	11.12	11.18	11.26	11.15	11.12	11.02	11.23	11.17	11.26
140	11.1	11.1	11.0	11.0	11.0	11.07	11.07	11.09	11.09	11.09	11.10	11.16	11.18	11.14	11.12	11.01	11.18	11.15	11.25
150	11.1	11.0	11.0	10.9	11.0	11.10	11.06	11.09	11.09	11.07	11.10	11.15	11.18	11.14	11.12	11.01	11.15	11.15	11.25

Dissolved Oxygen (g m^{-3})

Depth (m)																			
0	10.5	10.1	9.2	9.5	8.9	8.3	7.9	9.2	8.7	8.5	8.1	9.0	9.0	9.2	9.3	9.1	8.9	8.2	8.7
10	10.7	10.2	9.8	9.8	8.9	8.6	7.9	9.2	8.6	8.3	8.3	9.0	9.0	9.4	9.5	8.7	8.8	8.4	8.3
20	10.7	9.9	9.8	9.9	8.9	8.7	8.1	9.2	8.8	8.5	8.7	9.0	9.1	9.4	9.5	8.7	9.1	8.4	8.5
30	10.6	10.0	9.8	9.7	8.9	8.7	8.3	9.0	8.8	8.5	8.6	9.0	9.1	9.6	9.5	8.7	8.9	8.4	8.5
40	10.6	9.7	9.5	9.6	8.8	8.7	8.1	8.3	8.2	8.6	8.6	9.0	9.1	9.6	9.5	9.1	8.7	8.2	8.2
50	10.4	9.9	9.5	9.3	8.6	8.7	8.0	8.0	7.9	8.2	8.6	9.0	9.1	9.6	9.5	9.1	8.5	8.2	8.2
60	10.4	9.8	9.4	9.2	8.6	8.6	8.0	8.0	7.9	7.7	8.7	9.0	9.1	9.7	9.5	8.7	8.4	8.0	7.9
70	10.3	9.7	9.3	9.0	8.6	8.7	8.0	8.0	7.8	7.7	8.4	8.9	9.1	9.7	9.5	8.7	8.3	7.9	7.8
80	10.3	9.0	9.2	9.0	8.5	8.5	7.9	7.9	7.7	7.6	7.6	7.8	9.0	9.7	9.5	8.7	8.2	7.6	7.6
90	8.1	8.6	9.2	9.0	8.6	8.5	7.7	7.9	7.8	7.4	7.4	7.4	8.9	9.7	9.5	8.7	8.2	7.6	7.6
100	7.9	7.3	9.2	8.9	8.6	8.5	8.3	7.7	7.6	7.4	7.3	7.2	8.7	9.7	9.5	8.7	8.0	7.5	7.6
110	7.5	7.1	9.1	8.9	8.6	8.3	8.1	7.7	7.6	7.6	7.4	7.1	8.3	9.7	9.5	8.7	8.0	7.5	7.5
120	7.4	6.8	9.1	8.9	8.3	8.4	8.1	7.7	7.4	7.5	7.3	6.9	7.9	9.7	9.5	8.2	8.1	7.4	7.4
130	7.3	6.7	9.0	8.8	7.9	8.2	8.0	7.5	7.4	7.5	7.3	6.9	7.3	9.7	9.5	8.5	8.1	7.4	7.3
140	7.1	6.7	8.9	8.7	7.5	8.1	8.0	7.5	7.2	7.4	7.2	6.9	7.1	9.7	9.5	8.6	8.0	7.3	7.2
150	6.9	6.4	8.9	8.6	7.5	8.0	7.5	7.2	6.8	7.0	6.9	6.8	7.4	9.7	9.3	8.5	7.9	7.3	7.1

Secchi depth

Depth (m)	16	14.5	10	10	14.9	18	19.1	15	14	14	14	11	12	15	12	13	11	12	17

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **1998-1999**

For the period starting 28 July 1998

Temperature

Date	28-7-98	22-8-98	29-9-98	1-11-98	26-11-98	22-12-98	12-2-99	3-3-99	14-4-99	30-4-99	19-5-99	1-6-99	17-6-99	13-7-99	6-8-99	3-9-99	29-9-99	18-10-99
Depth (m)																		
0	11.4	11.5	12.9	13.6	18.4	18.5	20.1	20.9	18.3	16.4	14.4	14.2	13.0	12.0	11.8	11.8	11.5	12.8
10	11.6	11.3	11.9	13.2	15.6	16.7	20.1	19.8	18.3	16.4	14.4	14.1	13.4	12.0	11.4	11.3	11.5	12.7
20	11.6	11.3	11.5	12.7	15.4	15.7	20.1	19.8	18.3	16.4	14.5	14.1	13.4	12.0	11.4	11.2	11.5	12.4
30	11.6	11.3	11.3	12.4	12.7	14.5	14.9	15.1	18.1	16.0	14.5	14.1	13.4	12.0	11.4	11.1	11.4	11.6
40	11.6	11.3	11.2	12.4	12.1	12.7	13.2	13.1	12.9	13.1	14.5	13.9	13.4	12.0	11.3	11.1	11.2	11.4
50	11.6	11.3	11.1	12.2	11.8	11.8	12.1	12.1	11.9	12.2	13.1	13.0	13.4	12.0	11.3	11.1	11.1	11.3
60	11.6	11.3	11.1	11.7	11.5	11.5	11.6	11.8	11.6	12.0	11.8	12.0	12.1	12.0	11.3	11.0	11.1	11.1
70	11.6	11.1	11.0	11.2	11.3	11.3	11.4	11.5	11.4	11.8	11.3	11.4	11.5	12.0	11.3	11.0	11.0	11.1
80	10.6	10.9	11.0	11.1	11.2	11.2	11.2	11.4	11.3	11.2	11.2	11.3	11.3	11.4	11.3	11.0	11.0	11.0
90	10.6	10.9	10.9	11.1	11.1	11.1	11.1	11.3	11.2	11.1	11.1	11.2	11.2	11.3	11.3	11.0	11.0	11.0
100	10.5	10.8	10.9	11.0	11.1	11.1	11.1	11.3	11.2	11.1	11.1	11.1	11.2	11.2	11.2	11.0	11.0	11.0
110	10.5	10.5	10.9	11.0	11.0	11.1	11.1	11.2	11.2	11.1	11.1	11.1	11.1	11.2	11.2	11.0	11.0	11.0
120	10.5	10.5	10.9	11.0	11.0	11.0	11.0	11.2	11.2	11.1	11.1	11.1	11.1	11.2	11.1	11.0	11.0	11.0
130	10.5	10.5	10.7	11.0	11.0	11.1	11.1	11.1	11.1	11.1	11.0	11.1	11.1	11.1	11.1	11.0	11.0	11.0
140	10.5	10.5	10.7	10.9	11.0	11.1	11.1	11.1	11.1	11.1	11.0	11.1	11.0	11.1	11.1	11.0	11.0	11.0
150	10.5	10.5	10.7	10.9	11.0	11.1	11.1	11.1	11.1	11.1	11.0	11.1	11.0	11.1	11.0	11.0	10.9	11.0
Dissolved Oxygen (g m^{-3})																		
Depth (m)																		
0	10.6	10.6	10.6	10.4	9.6	9.7	9.0	8.6	9.1	9.5	9.9	10.0	10.4	10.5	10.1	9.2	9.5	8.9
10	10.5	10.5	10.7	10.7	9.9	10.1	9.0	8.7	9.2	9.5	10.5	10.4	10.3	10.7	10.2	9.8	9.8	8.9
20	10.4	10.4	10.6	10.7	9.8	10.2	8.9	8.7	9.1	9.6	10.4	10.4	10.4	10.7	9.9	9.8	9.9	8.9
30	10.4	10.3	10.5	10.6	10.1	10.2	9.9	9.5	9.1	9.6	10.1	10.7	10.5	10.6	10.0	9.8	9.7	8.9
40	10.3	10.3	10.3	10.4	10.0	10.1	9.9	9.2	9.1	9.1	10.0	10.4	10.4	10.6	9.7	9.5	9.6	8.8
50	10.3	10.2	10.2	10.2	9.8	9.9	9.6	8.9	9.0	8.7	9.2	9.6	10.4	10.4	9.9	9.5	9.3	8.6
60	10.3	10.1	10.1	10.0	9.7	9.7	9.5	8.8	8.9	8.7	8.7	9.4	9.0	10.4	9.8	9.4	9.2	8.6
70	10.3	9.5	9.9	9.6	9.5	9.5	9.4	8.7	8.7	8.6	8.3	9.1	8.9	10.3	9.7	9.3	9.0	8.6
80	8.6	8.2	9.5	9.1	9.2	9.3	9.2	8.6	8.6	8.4	8.2	9.1	8.6	10.3	9.0	9.2	9.0	8.5
90	8.5	7.9	9.3	8.8	9.1	9.1	9.1	8.4	8.6	8.0	7.8	8.8	8.5	8.1	8.6	9.2	9.0	8.6
100	8.3	7.4	8.9	8.5	9.1	8.9	8.9	8.3	8.6	8.0	7.7	8.5	8.2	7.9	7.3	9.2	8.9	8.6
110	8.3	7.4	8.5	8.3	8.8	8.9	8.7	8.2	8.5	8.0	7.5	8.2	8.1	7.5	7.1	9.1	8.9	8.6
120	8.2	7.4	7.7	8.0	8.6	8.8	8.3	7.9	8.3	7.9	7.4	8.2	8.0	7.4	6.8	9.1	8.9	8.3
130	8.2	7.4	7.6	7.8	8.4	8.6	8.1	7.7	8.1	7.7	7.3	8.1	7.7	7.3	6.7	9.0	8.8	7.9
140	8.1	7.4	7.4	7.6	8.2	8.4	7.9	7.5	7.9	7.5	7.2	7.8	7.4	7.1	6.7	8.9	8.7	7.5
150	8.1	7.4	7.4	7.6	8.0	8.2	7.7	7.3	7.7	7.3	7.0	7.5	7.3	6.9	6.4	8.9	8.6	7.5
Secchi depth																		
Depth (m)	10.0	10.5	10.4	13.5	15.0	14.5	12.5	14.3	13.0	12.2	15.0	15.0	15.0	16.0	14.5	10.0	10.0	14.9

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **1997-1998**
For the period starting 16 September 1997

Temperature

Date	16-9-97	11-10-97	28-10-97	02-12 -97	21-1 -98	04-3-98	24-3-98	26-3-98	07-4-98	29-5-98	28-7-98	22-8-98
Depth (m)												
1	10.8	11.8	12.2	14.5	17.7	20.0	19.3	18.6	17.7	14.2	11.4	11.49
10	10.5	11.4	12.0	13.7	17.6	19.9	18.6	18.6	17.7	14.3	11.6	11.32
20	10.5	11.1	11.5	13.6	16.5	19.7	18.5	18.5	17.7	14.0	11.6	11.27
30	10.5	10.8	11.5	13.1	14.3	16.4	18.0	18.1	17.5	13.1	11.6	11.27
40	10.5	10.6	11.4	12.5	12.0	13.3	13.0	12.6	13.7	12.0	11.6	11.27
50	10.5	10.5	11.1	11.5	11.2	12.0	11.9	11.7	11.5	11.2	11.6	11.26
60	10.5	10.5	11.1	11.0	11.0	11.5	11.1	11.1	11.0	10.9	11.6	11.26
70	10.5	10.5	10.8	10.8	10.8	11.0	10.7	10.8	10.8	10.8	11.6	11.12
80	10.5	10.5	10.7	10.7	10.7	10.8	10.6	10.7	10.6	10.6	10.6	10.90
90	10.5	10.5	10.6	10.6	10.6	10.7	10.5	10.6	10.6	10.6	10.6	10.86
100	10.5	10.5	10.5	10.5	10.6	10.7	10.5	10.6	10.6	10.6	10.5	10.82
110	10.5	10.5	10.4	10.5	10.6	10.6	10.5	10.5	10.5	10.6	10.5	10.5
120	10.5	10.5	10.5	10.5	10.5	10.6	10.5	10.5	10.5	10.5	10.5	10.5
130	10.5	10.5	10.5	10.5	10.5	10.6	10.5	10.5	10.5	10.5	10.5	10.5
140	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
150	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5

Dissolved Oxygen (g m^{-3})

Depth (m)												
1	10.55	10.37	10.68	9.89	9.27	9.17	9.43	9.10	9.14	9.92	10.60	10.64
10	10.52	10.51	10.22	9.86	9.38	9.19	9.53	9.07	9.10	9.88	10.46	10.50
20	10.50	10.46	10.24	9.86	9.46	9.22	9.61	8.95	9.07	9.87	10.40	10.36
30	10.29	10.46	10.00	9.74	9.81	9.30	9.78	8.97	9.09	9.68	10.35	10.27
40	10.31	10.39	9.96	9.66	9.85	9.32	9.73	9.47	9.32	9.40	10.32	10.26
50	10.27	10.36	9.89	9.47	9.53	9.16	9.55	9.45	9.34	9.26	10.30	10.20
60	10.16	10.31	9.77	9.44	9.37	9.17	9.30	9.47	9.30	9.18	10.28	10.10
70	10.08	10.24	9.76	9.19	9.30	9.11	9.21	9.38	9.24	9.20	10.25	9.54
80	10.06	10.15	9.85	9.04	9.13	9.04	9.14	9.30	9.13	9.12	8.58	8.15
90	10.03	10.09	9.33	9.00	9.10	8.93	9.03	9.24	9.05	9.08	8.52	7.90
100	9.99	10.06	9.23	8.96	9.01	8.89	8.39	9.16	8.97	8.94	8.34	7.36
110	9.96	10.02	9.03	8.87	8.89	8.83	8.38	8.98	8.94	8.78	8.26	7.36
120	9.91	10.00	8.96	8.87	8.84	8.75	8.38	8.87	8.88	8.69	8.21	7.36
130	9.86	9.92	8.76	8.84	8.68	8.63	8.38	8.38	8.79	8.41	8.21	7.36
140	9.82	9.87	8.76	8.71	8.45	8.30	8.38	8.38	8.58	8.41	8.14	7.36
150	9.56	9.69	8.76	8.65	8.38	8.22	8.38	8.38	8.40	8.41	8.14	7.36

Secchi depth data (m)

Depth (m)	12.0	13.7	12.5	14.5	14.7	11.5	13.5	13.5	13.5	15.5	10.0	10.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 1996-1997

For the period starting 3 September 1996

Temperature

Date	3-9-96	17-9-96	27-9-96	17-10-96	24-10-96	6-11-96	28-11-96	11-12-96	23-12-96	8-1-97	29-1-97	26-3-97	2-4-97	15-4-97	20-5-97	29-5-97	7-7-97	29-7-97
Depth (m)																		
1	10.5	10.7	12.5	13.3	12.6	13.5	13.6	14.8	16.3	17.9	17.8	17.7	17.3	16.7	14.1	14.2	11.7	10.9
10	10.4	10.6	11.6	12.0	12.3	13.6	13.6	14.8	15.3	16.8	17.6	17.6	17.3	16.7	14.0	14.1	11.7	11.0
20	10.3	10.4	11.1	11.9	12.3	13.4	13.3	14.4	15.1	16.5	17.4	17.2	17.2	16.7	14.0	14.1	11.7	11.0
30	10.3	10.3	11.0	11.8	12.3	13.3	13.3	14.2	15.0	15.6	14.8	16.6	17.2	16.7	12.6	14.1	11.7	11.0
40	10.3	10.3	10.5	11.7	11.9	11.7	11.6	12.7	13.5	13.0	13.4	13.8	14.5	14.0	11.5	14.0	11.7	11.0
50	10.4	10.3	10.4	11.5	11.6	10.8	10.9	12.5	12.4	11.9	11.8	12.4	11.5	11.9	11.0	12.1	11.7	11.0
60	10.3	10.3	10.4	10.9	11.1	10.6	10.9	11.7	11.3	11.2	10.9	11.2	10.9	11.1	10.5	11.8	11.7	11.0
70	10.3	10.3	10.3	10.6	10.6	10.5	10.5	11.7	10.7	10.8	10.7	10.7	10.6	10.9	10.5	11.1	11.7	11.0
80	10.3	10.3	10.3	10.5	10.5	10.4	10.4	11.1	10.6	10.6	10.6	10.5	10.5	10.7	10.5	10.8	10.9	11.0
90	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.4	10.5	10.5	10.6	10.5	10.6	10.8	10.9
100	10.3	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.6	10.7
110	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.6
120	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.5
130	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.5
140	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.3	10.3	10.3	10.4	10.4	10.5	10.5	10.5	10.5	10.5
150	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.4	10.5	10.4	10.4	10.5	10.5
Dissolved Oxygen (g m^{-3})																		
Depth (m)																		
1	8.81	9.08	10.03	9.78	10.32	9.96	9.99	10.03	9.10	8.71	8.80	9.70	9.40	9.06	9.09	9.3	9.9	10.53
10	9.17	9.17	10.43	9.85	10.27	9.84	9.87	9.97	9.30	8.70	8.80	9.30	9.25	8.95	9.10	9.2	9.8	10.42
20	9.14	8.98	10.32	9.84	10.15	9.80	9.80	9.90	9.30	8.70	8.70	8.93	8.94	8.91	9.06	9.2	9.8	10.45
30	8.98	8.95	10.16	9.84	9.89	9.79	9.81	9.76	9.30	8.80	9.10	8.80	8.82	8.87	9.01	9.2	9.8	10.43
40	8.90	8.93	9.98	9.80	9.89	9.73	9.77	9.70	9.30	9.00	8.90	8.78	8.79	8.82	8.94	9.1	9.8	10.46
50	8.78	8.87	9.69	9.76	9.80	9.29	9.35	9.10	9.30	8.80	8.90	8.51	8.58	8.65	8.86	9.1	9.7	10.40
60	8.73	8.80	9.54	9.67	9.67	9.19	9.14	9.04	9.15	8.60	8.70	8.49	8.56	8.71	8.70	9.0	9.7	10.36
70	8.74	8.80	9.45	9.56	9.44	9.14	9.09	9.03	9.07	8.60	8.60	8.47	8.52	8.71	8.64	8.9	9.7	10.34
80	8.70	8.77	9.37	9.42	9.33	9.03	9.01	9.01	9.00	8.60	8.50	8.36	8.46	8.69	8.48	8.5	8.6	10.34
90	8.63	8.70	9.24	9.29	9.30	8.99	8.96	8.92	8.98	8.60	8.50	8.30	8.45	8.63	8.32	8.3	8.2	10.24
100	8.59	8.61	9.11	9.22	9.21	8.94	8.93	8.88	8.95	8.60	8.40	8.27	8.40	8.54	8.29	8.2	8.1	8.70
110	8.48	8.49	9.13	9.15	9.20	8.90	8.87	8.80	8.89	8.50	8.30	8.18	8.29	8.48	8.27	8.1	8.0	8.02
120	8.44	8.33	9.07	8.91	8.98	8.77	8.74	8.73	8.85	8.40	8.20	8.08	8.20	8.41	8.22	8.1	8.0	8.05
130	8.19	8.27	9.07	8.83	8.98	8.71	8.69	8.69	8.66	8.30	8.30	7.96	8.02	8.20	8.19	8.1	7.9	8.09
140	8.39	8.35	9.05	8.89	8.89	8.62	8.65	8.60	8.33	8.20	8.20	7.40	7.60	7.87	7.97	7.8	7.4	7.79
150	8.81	8.84	8.98	8.49	8.94	8.48	8.43	8.47	8.25	8.10	8.10	7.40	7.50	7.71	7.88	7.7	7.2	7.13
Secchi depth data (m)																		
Secchi d	13.1	14..2	11.2	12.6	13.4	14.9	14.1	14.7	17.7	15.1	15.2	15.3	16.0	17.7	14.6	14.5	12.5	13.5

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. 1995-1996

For the period starting 12 September 1995

Temperature

Date	12-9-95	25-9-95	30-10-95	24-11-95	06-12-95	12-1-96	31-1-96	13-2-96	29-2-96	20-3-96	28-3-96	18-4-96	19-5-96	14-6-96	9-7-96
Depth (m)															
1	10.7		13.7		17.7	21.1	21.7	22.7	20.5	18.2	16.8	17.7	14.8	12.2	11.2
10	10.7		11.9		16.2	20.7	20.7	21.0	20.1	18.2	16.7	17.4	14.8	12.2	11.2
20	10.7		11.4		15.3	18.1	18.5	20.6	20.0	18.2	16.6	17.3	14.8	12.1	11.2
30	10.7		11.2		12.4	14.8	13.5	15.1	15.5	18.1	13.7	17.0	14.8	12.1	11.2
40	10.7		10.9		11.4	12.4	12.3	12.2	11.9	12.3	12.4	12.6	14.7	12.0	11.2
50	10.7		10.8		11.0	11.5	11.6	11.6	11.3	11.4	11.6	11.4	11.6	11.2	11.2
60	10.7		10.7		10.7	11.0	11.2	11.0	11.0	11.1	11.4	11.1	11.1	10.9	11.2
70	10.7		10.5		10.6	10.9	10.8	10.8	10.8	10.9	11.6	11.1	10.9	10.8	11.2
80	10.5		10.5		10.6	10.9	10.7	10.7	10.7	10.8	11.2	10.9	10.8	10.8	11.2
90	10.4		10.5		10.6	10.7	10.7	10.7	10.7	10.7	11.3	10.8	10.7	10.8	10.8
100	10.4		10.5		10.5	10.6	10.6	10.7	10.7	10.7	10.9	10.8	10.7	10.7	10.8
110	10.4		10.5		10.5	10.5	10.6	10.7	10.7	10.6	10.8	10.8	10.7	10.7	10.8
120	10.4		10.5		10.5	10.5	10.5	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.8
130	10.4		10.5		10.5	10.5	10.5	10.7	10.6	10.6	10.7	10.7	10.7	10.7	10.8
140	10.4		10.5		10.5	10.5	10.5	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.8
150	10.4		10.5		10.5	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.8
160	10.4		*		10.5	10.5	10.5	*	*	*	*	*	*	*	*

Dissolved oxygen (g m^{-3})

Depth (m)															
1	9.6		10.3		9.5	8.5	8.5	8.1	8.2	8.4	8.7	8.6	9.0	9.2	9.3
10	9.6		10.5		9.9	8.7	8.5	8.1	8.2	8.3	8.7	8.6	9.0	9.2	9.1
20	9.6		10.6		10.0	9.1	9.1	8.2	8.1	8.3	8.8	8.6	8.9	9.2	9.1
30	9.6		10.7		10.5	9.7	10.1	9.2	9.0	8.1	9.0	8.4	8.9	9.1	9.0
40	9.7		10.7		10.5	10.1	10.2	9.5	9.1	8.7	8.8	8.7	8.9	9.0	8.9
50	9.6		10.3		10.3	9.9	9.9	9.0	9.0	8.6	8.6	8.4	8.7	8.4	8.8
60	9.5		10.3		10.0	9.6	8.9	8.7	8.8	8.5	8.5	8.4	8.5	8.1	8.7
70	9.4		10.2		10.0	9.6	8.9	8.6	8.6	8.5	8.5	8.4	8.3	7.9	8.7
80	9.4		10.2		9.9	9.6	8.8	8.5	8.5	8.4	8.3	8.4	8.3	7.8	8.6
90	9.0		10.1		9.8	9.5	8.8	8.4	8.4	8.3	8.2	8.3	8.2	7.7	8.1
100	9.0		10.0		9.7	9.4	8.8	8.3	8.3	8.3	8.2	8.3	8.1	7.7	7.5
110	9.0		9.9		9.6	9.4	8.8	8.1	8.3	8.2	8.1	7.9	7.8	7.6	7.3
120	8.8		9.9		9.4	9.3	8.3	8.1	8.3	8.1	8.3	7.9	7.8	7.5	7.1
130	8.8		9.8		9.3	9.2	8.3	7.9	8.2	7.8	8.3	7.8	7.8	7.5	7.1
140	8.7		9.6		9.1	8.9	7.9	7.6	8.2	7.5	8.0	7.6	7.7	7.4	7.0
150	8.7		9.2		8.9	8.7	7.9	7.6	8.0	7.4	7.8	7.4	7.5	7.4	7.0

Secchi depth

Depth (m)	11.9	11.9	13.0	13.6	15.1	16.3	15.7	17.8	18.4	14.1	14.6	14.4	14.7	14.4	12.9

Lake Taupo Temperature, Dissolved Oxygen, and Secchi Depth Database. **1994-1995**

Started 27 October 1994

Temperature

Date	27-10-94	21-11-94	01-12-94	13-12 -94	27-12 -94	13-1 -95	25-1 -95	09-2 -95	26-2 -95	08-3 -95	24-3-95	12-4-95	19-4-95	04-5-95	21-5-95	08-6-95	14-7-95	30-7-95
	Depth (m)																	
1	11.7	12.8	15.7	17.5	17.8	18.6	19.9	20.6	20.9	20.9	18.5	19.4	18.4	17.0	15.0	13.4	11.3	10.8
10	11.5	12.6	14.2	16.4	17.3	18.4	19.9	20.0	19.9	19.8	18.4	18.6	18.2	16.9	15.0	13.5	11.3	10.8
20	11.5	12.6	13.2	15.5	16.9	18.0	17.8	19.6	19.9	19.7	18.4	18.4	18.2	16.8	15.0	13.4	11.3	10.8
30	11.3	12.6	13.0	13.2	13.3	15.9	15.6	15.0	15.0	15.1	18.4	15.7	16.5	14.6	15.0	13.4	11.3	10.8
40	10.9	12.6	12.1	12.5	12.2	13.1	13.3	12.9	13.0	12.8	12.7	13.0	12.5	12.2	12.7	13.3	11.3	10.8
50	10.9	12.4	11.4	11.7	11.6	12.0	11.8	11.9	11.9	11.8	12.0	11.8	11.6	11.3	11.7	12.8	11.2	10.8
60	10.8	11.8	10.7	11.1	*	11.4	11.5	11.4	11.1	11.2	11.3	11.3	11.1	11.2	11.3	11.7	11.2	10.8
70	10.7	10.9	10.6	10.8	*	*	11.2	11.0	10.9	10.9	11.0	10.9	10.9	10.9	11.0	11.2	11.2	10.8
80	10.6	10.7	10.5	10.7	*	*	11.0	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	10.9	10.8
90	10.5	10.6	10.5	10.6	*	*	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.8	10.8	10.8	10.8
100	10.5	10.5	10.5	10.5	*	*	10.7	10.6	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.8	10.7	10.8
110	10.5	10.5	10.4	10.4	*	*	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.7	10.8	10.7	10.8
120	10.4	10.4	10.4	10.4	*	*	10.6	10.5	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.8	10.7	10.8
130	10.4	10.4	10.4	10.3	*	*	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.8	10.7	10.8
140	10.4	10.3	10.4	10.3	*	*	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.6	10.7	10.8	10.7	10.8
150	10.3	10.3	10.3	10.3	*	*	10.5	10.5	10.6	10.6	10.6	10.6	10.6	10.6	10.7	10.8	10.7	10.8
160	10.3	10.3	10.3	10.3	*	*	10.5	10.5	10.6	10.6	10.6	10.6	10.6	10.7	*	10.7	*	*

Dissolved oxygen (g m^{-3})

	Depth (m)																	
1	10.5	9.6	9.8	9.2	9.0	8.0	8.9	8.4	8.5	8.5	8.7	*	9.2	9.3	9.0	9.0	9.6	9.6
10	10.6	9.4	10.3	9.4	10.6	10.4	10.2	8.5	8.4	8.0	*	*	9.3	9.1	8.8	9.1	9.6	9.5
20	10.8	9.4	10.3	9.4	11.0	10.5	11.5	8.5	8.4	8.0	*	*	9.2	9.0	8.8	9.1	9.4	9.4
30	10.7	9.4	10.2	9.7	12.5	11.2	11.4	9.8	9.6	9.7	*	*	9.3	9.2	8.7	9.0	9.4	9.3
40	10.5	9.3	10.1	9.6	12.5	11.9	12.0	9.7	9.4	9.7	*	*	9.7	9.3	8.6	9.0	9.3	9.3
50	10.4	9.3	9.9	9.5	12.6	11.9	12.0	9.4	9.4	9.5	*	*	9.5	9.2	8.5	8.8	9.2	9.3
60	10.4	9.4	9.9	9.5	*	10.3	11.9	9.4	9.3	9.4	*	*	9.5	9.2	8.5	8.3	9.2	9.2
70	10.4	*	9.8	9.5	*	*	11.7	9.3	9.3	9.3	*	*	9.5	9.2	8.4	8.3	9.2	9.2
80	10.4	*	9.8	9.5	*	*	11.6	9.3	8.9	9.1	*	*	9.0	9.2	8.3	8.3	8.5	9.1
90	10.4	*	9.7	9.5	*	*	11.4	9.2	8.8	9.0	*	*	8.7	9.0	8.1	7.9	8.3	9.0
100	10.2	*	9.6	9.4	*	*	11.3	9.0	8.6	8.8	*	*	8.6	8.6	8.0	7.6	7.8	8.9
110	10.3	*	9.7	9.3	*	*	11.1	9.0	8.3	8.7	*	*	8.3	8.2	8.0	7.5	7.4	8.8
120	10.2	*	9.4	9.2	*	*	10.9	8.7	8.2	8.4	*	*	8.2	7.9	7.8	7.1	7.2	8.6
130	9.8	*	9.2	9.0	*	*	10.6	8.5	7.9	8.3	*	*	8.0	7.7	7.6	7.0	7.2	8.4
140	9.8	*	8.9	9.0	*	*	10.5	8.3	7.6	8.1	*	*	8.0	7.5	7.4	7.0	7.1	8.4
150	9.9	*	8.6	8.7	*	*	10.4	8.3	7.3	7.9	*	*	7.5	7.3	7.0	7.0	7.1	8.3
160	*	*	8.5	8.5	*	*	10.0	8.2	7.5	7.7	*	*	6.6	7.2	*	6.8	*	*

Secchi depth

Depth (m)																		
	11.7	11.4	12.5	12.9	15.6	17.8	15.7	17.0	16.5	17.1	14.7	15.7	16.1	15.1	14.3	15.0	12.5	15.7

* = missing or invalid data

Appendix 4. Nutrient data

Includes accumulated 10-m tube data since 1994. Blank cells represent missing data.

For completeness, 10-m tube data collected from the Kuratau Basin (site B) and Western Bays (site C) from January 2002 to December 2004 are included as separate sheets following the mid-lake data from site A for those years.

For the spring/autumn profile data, two different analytical methods are used to measure particulate nitrogen:

1. a wet digestion method involving high temperature refluxing in digestion mixture [persulphate / sulphuric acid / Selenium catalyst] for 3 hours followed by colorimetric determination of the nitrogen as the ammoniacal form, and

2. a CHN combustion method which converts all nitrogen compounds to N_2 gas in a furnace at ~1000°C to be measured in a thermal conductivity detector.

From February 2002, DRP, NO_3-N, and NH_4-N were measured on a Lachat Flow Injection Analysis (FIA) system but using essentially the same chemistry as previously used on the Technical Auto-Analyzer system. The reported detection limits for these nutrients remains the same at 0.5 mg m^{-3} for DRP and NO_3-N, and 1 mg m^{-3} for NH_4-N. TN and TP values are the sum of all N and P components, excluding Urea-N which is part of the DON component.

From October 2009, chlorophyll *a* concentrations collected by van Dorn sampler from a depth of 50 m have been included in the data set as an indication of the biomass in the DCM. However, because the DCM moves up and down during the year, the fixed depth samples from 50 m may not always be in the centre of DCM.

Lake Taupo cumulative database of 10m tube sample data from October1994 to September 2002.
Samples collected from central lake site.

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	m	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
27/10/1994	11.7	11.7	1.2	0.7	2.5	4.4	1.1	0.2	56	16.6	73.4	1.16	
24/11/1994	12.8	11.4	0.5	2.7	1.7	4.8	1.7	1.0	51	12.6	66.5	0.41	
1/12/1994	15.7	12.5	0.6	2.4	2.4	5.4	2.2	1.2	56	18.5	78.0	0.41	
13/12/1994	17.5	12.9	0.8	4.2	1.4	6.4	<0.2	0.9	51	9.3	60.8	0.24	
28/12/1994	17.8	15.6	0.5	1.7	1.9	4.1	1.1	1.3	51	16.7	69.6	0.41	
13/01/1995	18.6	17.8	0.1	2.2	1.6	3.8	<0.2	0.8	53	11.6	64.9	0.22	
24/01/1995	19.9	15.7	0.2	2.1	1.2	3.6	<0.2	0.8	57	13.3	71.0	0.25	
10/02/1995	20.6	17.0	0.3	2.2	1.2	3.6	<0.2	1.5	62	10.2	73.3	0.32	
27/02/1995	20.9	16.5	0.4	<0.5	2.5	2.8	1.9	1.5	71	16.5	90.8	0.35	
9/03/1995	20.9	17.1	0.4	1.7	1.7	3.7	0.2	0.7	55	11.6	67.5	0.28	
24/03/1995	18.5	14.7			1.9	1.9				13.0		0.37	
12/04/1995	19.4	15.7	0.2	1.4	1.7	3.2	0.3	0.7	51	17.3	69.6	0.57	
19/04/1995	18.4	16.1	2.8	1.5	1.4	5.7	4.0	0.9	71	14.1	90.0	0.92	
4/05/1995	17.0	15.1	1.4	1.1	3.0	5.5	1.4	2.3	76	24.7	104.4	0.96	
21/05/1995	15.0	14.3	1.2	0.9	2.2	4.3	0.4	2.1	50	29.2	81.8	0.98	
8/06/1995	13.4	15.0	0.7	0.4	1.8	2.9	0.2	0.6	54	15.4	70.2	1.05	
14/07/1995	11.3	12.5	0.3	2.5	1.7	4.5	0.3	2.1	53	15.0	70.8	1.32	
30/07/1995	10.8	15.7	0.7	0.7	1.9	3.3	<0.2	4.6	35	17.3	57.3		
13/08/1995			0.5	0.4	1.9	2.8	<0.2	4.6	39	14.2	57.4	0.99	
12/09/1995	10.7	11.9	0.5	2.2	2.2	4.9	1.0	40.9	177	19.1	237.6	1.37	
25/09/1995	11.5	11.9	<0.2	0.7	2.1	2.8	<0.2	0.1	84	17.6	101.6	0.64	
30/10/1995	13.0	13.0	<0.2	2.4	1.9	4.3	<0.2	<0.1	56	14.7	70.4	0.93	
24/11/1995	13.7	13.6	0.8	1.8	1.6	4.3	1.9	<0.1	59	12.6	73.3	0.29	
6/12/1995	17.7	15.1	2.2	0.4	1.2	3.9	1.7	<0.1	58	11.3	70.8	0.20	
12/01/1996	21.1	16.3	2.6	0.6	1.2	4.4	3.6	<0.1	64	10.1	77.8	0.24	
31/01/1996	21.7	15.7	1.3	1.6	1.3	4.2	4.2	<0.1	59	11.9	75.5	0.29	
13/02/1996	22.7	17.8	2.1	3.3	1.2	6.6	7.4	<0.1	81	10.4	98.9	0.15	
29/02/1996	20.5	18.4	1.9	2.2	1.2	5.3	4.2	<0.1	61	10.8	76.3	0.31	
20/03/1996	18.2	14.1	0.8	2.2	1.4	4.5	5.4	<0.1	76	14.2	95.3	0.56	
28/03/1996	16.8	14.6	1.3	1.8	1.4	4.5	4.7	<0.1	91	12.6	108.3	0.81	
18/04/1996	17.7	14.4	0.8	2.2			4.3	<0.1	61			0.41	
19/05/1996	14.8	14.7	0.8	3.0			6.8	<0.1	59			0.70	
14/06/1996	12.2	14.4	1.6	3.2			5.7	<0.1	71				
19/06/1996	12.2	14.4	1.0	1.2			4.0	<0.1	49			0.70	
9/07/1996	11.2	12.9	3.0		1.9		4.0	<0.1	47	11.3		0.80	
3/09/1996	10.5	13.1	0.7	2.0	3.0	5.7	2.5	0.2	52	17.0	71.7	1.03	
18/09/1996	10.7	14.2	1.3	1.2	2.4	4.9	2.1	0.2	42	14.0	58.3	0.75	
30/09/1996	12.5	11.2	0.9	1.6	1.8	4.3	3.3	0.2	58	11.0	72.5	0.28	
17/10/1996	13.3	12.6	0.6	2.1	2.6	5.3	2.9	2.5	64	19.0	88.4	0.59	
24/10/1996	12.6	13.4	0.7	2.3	2.2	5.2	2.4	0.4	64	15.0	81.8	0.47	
6/11/1996	13.5	14.9	0.8	2.6	2.2	5.6	3.2	1.0	64	17.0	85.2	0.45	
28/11/1996	13.6	14.1	0.4	1.9	2.4	4.7	2.6	0.4	49	20.0	72.0	0.90	
11/12/1996	14.8	14.7	1.3	1.7	1.3	4.3	6.2	0.8	98	17.0	122.0	0.33	
23/12/1996	16.3	17.7	1.3	1.1			5.2	0.3	46			0.23	
8/01/1997	17.9	15.1	0.7	1.7	1.9	4.3	2.0	0.6	50	15.0	67.6	0.33	
29/01/1997	17.8	15.2	0.7	1.8	1.6	4.1	1.9	0.4	54	17.0	73.3	0.21	
26/03/1997	17.7	15.3	0.6	1.7	2.1	4.4	2.4	1.8	57	19.0	80.2	0.46	
2/04/1997	17.3	16.0	0.9	1.3	1.6	3.8	1.7	0.3	51	16.0	69.0	0.69	
15/04/1997	16.7	17.7	0.7	2.5	1.5	4.7	3.2	0.8	57	12.0	73.0	0.40	
1/05/1997	15.6	16.0	0.6				1.7	0.1				0.58	
21/05/1997	14.2	14.6	1.0	8.8	1.7	11.5	4.5	0.3	92	15.0	111.8	1.05	
29/05/1997	14.3	14.5	1.1	1.1			3.3	1.0	51			0.89	
7/07/1997	11.6	12.5	0.6	0.9			4.7	2.1	53			0.90	
29/07/1997	10.9	13.5	0.5	1.6			1.5	2.1	39			1.13	
2/09/1997	10.6	14.1	1.4	1.1	1.7	4.2	7.0	1.8	47.0	13.1	68.9	1.08	
16/09/1997	10.6	12.0	0.5	1.1			1.3	0.7	35			2.16	
11/10/1997	11.6	13.7	2.4	2.8	1.7	6.9	4.8	0.9	63.3	16.2	85.2	1.14	
29/10/1997	12.1	12.5	0.7	1.9	1.9	4.5	1.3	7.3	32	19.0	59.6	1.49	
2/12/1997	14.5	14.5	0.2	2.3			3.2	1.7	55			0.83	
21/01/1998	17.7	14.7	1.4	1.1	1.2	3.7	2.8	1.5	46.0	10.0	60.3	0.48	
4/03/1998	20.0	11.5	1.5	1.7	2.6	5.8	6.4	4.0	76.0	19.8	106.2	0.58	
24/03/1998	19.3	13.5	1.0	1.4	1.8	3.2	2.1	1.1	48.0	13.2	64.4	1.25	
7/04/1998	17.7	13.5	0.9	1.4	1.8	4.1	1.9	2.5	52.0	13.7	70.1	1.04	
29/05/1998	14.2	15.5	1.0	1.9	1.9	4.8	5.0	3.5	51.0	16.4	75.9	1.36	
28/07/1998	11.4	10.0	1.2	1.0	3.1	5.3	2.1	1.4	45.0	26.0	74.5	1.19	
29/09/1998	12.9	10.5	1.5	1.0			2.2	0.5	41.0	20.3	64.0	0.70	
8/10/1998	12.9	10.4	1.5	<1			2.4	2.4	46.0	37.6	88.4	1.00	
1/11/1998	13.6	13.5	0.6	1.3	2.6	4.5	2.4	<0.5	36.0	15.2	53.6	0.90	
26/11/1998	18.4	15.0	1.3	2.6	2.1	6.0	9.6	1.6	42.0	16.4	69.6	0.61	
22/12/1998	18.5	14.5	1.1	0.4	2.5	4.0	2.7	1.1	36.0	17.7	61.5	0.25	
12/02/1999	20.1	12.5	0.8	2.8	1.7	5.3	4.0	1.6	39.0	11.4	56.0	0.60	165
3/03/1999	20.9	14.3	0.6	2.9	2.0	5.5	1.6	1.1	40.0	16.8	59.5	0.82	203
14/04/1999	18.3	13.0	0.6	<1	1.8	2.4	3.0	<0.5	41.0	19.0	61.6	1.20	250
30/04/1999	16.4	12.2	1.1	1.5	1.7	4.3	2.1	<0.5	38.0	19.6	60.2	0.94	198
19/05/1999	14.4	15.0	0.8	<1	1.5	5.1	1	<1	46.0	16.2	63.7	1.2	166
8/06/1999	14.1	14.5	1.0	<1	3.9	4.9	1	<1	48.0	25.4	74.9	1.1	
18/06/1999	13.0	15.0	0.8	<1	2.0	5.0	2	5	42.0	16.5	65.5	1.7	
20/07/1999	12.0	16.0	0.5	<1	3.1	3.6	1	<1	45.0	28.3	74.3	1.0	
9/08/1999	11.5	14.5	1.3	1.7	2.3	5.3	4	8	45.0	18.4	75.4	1.7	
6/09/1999	11.1	10.0	<0.5	2.5	2.1	5.1	2	1	60	16.2	79.2	0.5	
29/09/1999	11.5	10.0	0.7	1	4	5.7	3	1	54	32.6	90.6	1.8	
18/10/1999	12.7	14.9	0.5	3	2.5	6	<1	<1	41	19.4	60.4	0.4	
20/12/1999	16.4	18.0	0.7	2.3	5	8	4	2	39	38	83	1.6	
18/01/2000	17.6	19.1	0.9	2	2	4	5	2	52	18.5	70.5	0.6	
12/04/2000	17.3	15.0	0.8	3	2	5	1	1	61	22	83	0.8	
4/05/2000	15.8	14.0	1	3	2	5	1	2	48	17	68	1.3	
25/05/2000	14.3	14.0	1	4	1	6	2	<1	55	17	65	0.6	
20/06/2000	12.3	14.0	<1	4	0	4.0	2	2	52	16	72.0	1.7	194
11/07/2000	11.9	11.0	<1	4	3	7.0	3	2	46	22.5	73.5	1.65	198
5/08/2000	11.3	12.0	2	2	3	7.0	1	3.5	43.5	19.5	66.0	2.5	154
22/08/2000	11.2	15.0	2	2	2	6.0	2	4	49	16.5	71.5	1.65	159
12/09/2000	11.5	12.0	2	5	3.5	10.5	2	<1	63	23.5	88.5	1	148
29/09/2000	11.5	13.0	2	4	2	8.0	1	1	54	21	77.0	1.15	237
26/10/2000	13.1	11.0	0.8	4.2	3	8.0	1.0	0.4	41.6	25	68.0	1.3	237
14/11/2000	13.1	12.0	<1	4	2	6.0	1	<1	41	14.5	56.5	0.9	171
7/12/2000	15.1	17.0	2	2	1.55	5.6	7	4	63	14.75	88.8	0.6	166
4/01/2001	18.0	14.5	<1	2	1.5	3.5	1	<1	40	11	52.0	0.5	127
16/01/2001	19.0	18.0	0.5	2.5	1.5	4.5	1	0.5	53.5	13	68.0	0.5	119
21/02/2001	20.5	17.0	0.9	1.1	1.5	3.5	<1	0.5	46.5	12.5	59.5	0.6	191
2/03/2001	20.7	14.5	<1	2	2	4.0	2	<1	53	18	73.0	0.9	193
20/03/2001	19.0	17.0	<1	3	1.4	4.4	<1	<1	46	14.25	60.3	0.9	154
9/04/2001	17.0	13.5	0.8	1.2	2.15	4.2	<1	3	62	19.45	84.5	1.05	199
8/05/2001	15.8	17.0	0.8	3.2	1.7	5.7	2	<1	61	23	86.0	1.1	248
30/05/2001	13.6	14.5	1.5	1.5	2	5.0	1	<1	57	12	70.0	1.4	203
2/07/2001	12.1	12.0	<1	3	2.3	5.3	1	1	50	18.3	70.3	1.5	156
25/07/2001	11.3	14.5	2	1	2.65	5.7	<1	6	45	19.75	70.8	2.2	188
13/08/2001	11.2	13.5	1	1	2.85	4.9	1	<1	41	21.9	63.9	2.1	225
3/09/2001	10.2	17.5	1	1	2.6	4.6	<1	<1	37	19	56.0	1.7	203
25/09/2001	11.6	11.0	1.1	0.9	2.8	4.8	1	<1	56	24.5	81.5	0.9	283
25/10/2001	13.0	14.5	0.8	1.2	2.4	4.4	<1	<1	46	19.4	65.4	1.1	246
12/11/2001	14.3	15.5	0.7	<1 (0.3)	5.15	6.2	<1 (0.5)	<0.5 (0)	34	35.0	69.5	1.7	403
10/12/2001	15.5	16.0	1.0	2	2.55	5.6	<1 (0.9)	<0.5 (0.1)	48	17.6	65.6	0.5	228
20/12/2001	17.0	13.0	0.6	2.7	2.05	5.4	1.3	<0.5 (0.1)	48	14.85	64.2	0.5	204
8/01/2002	18.3	13.0	<0.5 (0.3)	2	2.2	4.2	<1 (0)	<0.5	50	17.15	67.2	0.8	247
22/01/2002	19.3	15.0	<0.5 (0)	7	2.25	9.3	<1 (0)	<0.5	40	20.35	60.4	0.9	188
6/03/2002	18.7	14.5	1.2	0.8	2.05	4.1	<1 (0)	<0.5 (0.4)	74	17.7	91.7	1.7	227
4/04/2002	17.4	19.0	0.6	3	1.45	5.1	1.1	<0.5 (0.1)	46	10.7	57.8	0.8	138
17/04/2002	17.4	22.0	<0.5 (0)	3	1.65	4.7	<1 (0.5)	0.5	47	13.1	60.6	0.9	157
22/04/2002	17.05	22.0	-	-	-	-	-	-	-	-	-	-	-
5/05/2002	15.5	16.4	0.7	1			3.1	0.7	48			1	
16/05/2002			0.9	1.1	1.5	3.5	<1	<0.5	49	15.1	64.1	0.7	153
19/06/2002	12.6	17.0	1.2	1.8	1.9	4.9	<1 (0.5)	1.4	43.6	15.8	60.8	1.1	165
1/07/2002	12.1	16.0	1.2	1.8	1.8	4.8	<1 (0.9)	1.7	37.3	14.3	53.3	1.5	214
17/07/2002	11.4	15.5	2.3	2.7	1.7	6.7	2.3	7.8	41.9	14.6	66.6	1.5	154
31/07/2002	11.2	12.0	2.3	2.7	2.5	7.5	<1 (0.9)	5.9	177.2	16.7	199.8	2.2	193
29/08/2002	11.1	9.5	1.6	1.4	3.1	6.1	<1 (0)	<0.5 (0)	90	23	113.0	2.6	196
5/09/2002		6.7	-	-	-	-	-	-	-	-	-	-	-

Special repeat analyses.
Detection limit <0.1 mg m^{-3}

Detection limits prior to 14 April 1999 were
DL
DRP 0.2 mg m^{-3}
NH4-N 0.5 mg m^{-3}
NO3-N 0.5 mg m^{-3}

Values reported less than the DL
were special estimates of low samples.

Detection limits from 14 April 1999 on are
DL
DRP 0.5 mg m^{-3}
NH4-N 1 mg m^{-3}
NO3-N 1 mg m^{-3}

Values reported less than the DL
were special estimates of low samples.

New LACHAT Flow Injection Analysis
Detection limits from 1 Dec 2001 on are
DL
DRP 0.5 mg m^{-3}
NH4-N 1 mg m^{-3}
NO3-N 0.5 mg m^{-3}

High precision and confidence in the FIA
results allow estimates below the nominal DL.
Data in brackets are given as an indication

of the likely absolute concentration

Lake Taupo cumulative database of 10 m tube sample data from June 2000 on
Samples collected from Mid Lake (Site A)

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
20/06/2000	12.3	14.0	<1	4	0	4.0	2	2	52	16	72.0	1.7	193.5
11/07/2000	11.9	11.0	<1	4	3	7.0	3	2	46	22.5	73.5	1.65	198
5/08/2000	11.3	12.0	2	2	3	7.0	1	3.5	43.5	19.5	36.0	2.5	153.5
22/08/2000	11.2	15.0	2	2	2	6.0	2	4	49	16.5	71.5	1.65	158.5
12/09/2000	11.5	12.0	2	5	3.5	10.5	2	<1	63	23.5	88.5	1	148
29/09/2000	11.5	13.0	2	4	2	8.0	1	1	54	21	77.0	1.15	236.5
26/10/2000	13.1	11.0	0.8	4.2	3	8.0	1.0	0.4	41.6	25	68.0	1.3	237
14/11/2000	13.1	12.0	<1	4	2	6.0	1	<1	41	14.5	56.5	0.9	171
7/12/2000	15.1	17.0	2	2	1.55	5.6	7	4	63	14.75	88.8	0.6	165.5
4/01/2001	18.0	14.5	<1	2	1.5	3.5	1	<1	40	11	52.0	0.5	127
16/01/2001	19.0	18.0	0.5	2.5	1.5	4.5	1	0.5	53.5	13	68.0	0.5	118.5
21/02/2001	20.5	17.0	0.9	1.1	1.5	3.5	<1	0.5	46.5	12.5	59.5	0.6	190.5
2/03/2001	20.7	14.5	<1	2	2	4.0	2	<1	53	18	73.0	0.9	193
20/03/2001	19.0	17.0	<1	3	1.4	4.4	<1	<1	46	14.25	60.3	0.9	154
9/04/2001	17.0	13.5	0.8	1.2	2.15	4.2	<1	3	62	19.45	84.5	1.05	199
8/05/2001	15.8	17.0	0.8	3.2	1.7	5.7	2	<1	61	23	86.0	1.1	248
30/05/2001	13.6	14.5	1.5	1.5	2	5.0	1	<1	57	12	70.0	1.4	203
2/07/2001	12.1	12.0	<1	3	2.3	5.3	1	1	50	18.3	70.3	1.5	155.5
25/07/2001	11.3	14.5	2	1	2.65	5.7	<1	6	45	19.75	70.8	2.2	188
13/08/2001	11.2	13.5	1	1	2.85	4.9	1	<1	41	21.9	63.9	2.1	225
3/09/2001	10.2	17.5	1	1	2.6	4.6	<1	<1	37	19	56.0	1.7	203
25/09/2001	11.6	11.0	1.1	0.9	2.8	4.8	1	<1	56	24.5	81.5	0.9	283
25/10/2001	13.0	14.5	0.8	1.2	2.4	4.4	<1	<1	46	19.4	65.4	1.1	246
12/11/2001	14.3	15.5	1.0	2	2.55	5.6	0.9	0.1	48	17.6	66.6	0.5	227.5
10/12/2001	15.5	16.0	1.0	2	2.55	5.6	0.9	0.1	48	17.6	66.6	0.5	227.5
20/12/2001	17.0	13.0	0.6	2.7	2.05	5.4	1.3	0.1	48	14.85	64.3	0.5	203.5
8/01/2002	18.3	13.0	0.3	2	2.2	4.5	0	<1	50	17.15	67.2	0.8	246.5
22/01/2002	19.3	15.0	0	7	2.25	9.3	0	<1	40	20.35	60.4	0.9	188
6/03/2002	18.7	14.5	1.2	0.8	2.05	4.1	0.0	0.4	74	17.7	92.1	1.7	226.5
4/04/2002	17.4	19.0	0.6	3	1.45	5.1	1.1	0.1	46	10.7	57.9	0.8	138
17/04/2002	17.4	22.0	0.0	3	1.65	4.7	0.5	0.5	47	13.1	61.1	0.9	157
5/05/2002	15.5	16.4	0.7	1			3.1	0.7	48			1	
19/06/2002	12.6	17.0	1.2	1.8	1.9	4.9	0.5	1.4	43.6	15.8	61.3	1.1	165.0
1/07/2002	12.1	16.0	1.2	1.8	1.8	4.8	0.9	1.7	37.3	14.3	54.2	1.5	214
17/07/2002	11.4	15.5	2.3	2.7	1.7	6.7	2.3	7.8	41.9	14.6	66.6	1.5	153.5
31/07/2002	11.2	12.0	2.3	2.7	2.5	7.5	0.9	5.9	177.2	16.7	200.7	2.2	193

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
29/08/2002	11.1	9.5	1.6	1.4	3.1	6.1	0.0	0	90	23	113.0	2.6	196
18/09/2002	11.4	12	1.3	1.7	2	5.0	0	0.3	47	13	60.3	0.9	196.5
9/10/2002	11.6	15.5	1.3	2.7	2.1	6.1	2.9	0	29	12	43.9	0.6	159.5
13/11/2002	12.6	18	0.9	1.1	2.4	4.4	1.7	1.3	41	14.0	58.0	0.7	158.5
28/11/2002	14.1	12.7	0.7	2.3	2.7	5.7	0.1	0.0	43.0	22.0	65.1	0.7	201.5
18/12/2002	15.0	13.5	0.6	1.8	2.5	4.9	0.2	0.1	47.0	14.0	61.3	0.4	123.0
30/01/2003	17.8	18	0.4	3.6	1.9	5.9	0.4	0.1	56.5	12.0	69.0	0.7	166.0
13/02/2003	19.3	19	0.5	2.5	1.6	4.6	0.0	0.4	43.6	8.0	52.0	0.5	146.0
17/03/2003	18.5	15	0.8	2.2	1.7	4.7	<1	0.4	45.6	13.0	59.0	1.0	212
3/04/2003	19.3	13.5	1.1	2.9	1.8	5.8	<1	0.5	78.5	17.7	96.7	1.1	234.5
28/04/2003	16.7	14	0.3	3.7	1.9	5.9	<1	0.3	73.7	15.6	89.6	1.5	208.5
15/05/2003	15.6	16.5	0.1	3.9	2.2	6.2	0.3	0.3	50.4	19.5	70.5	1.4	228.5
12/06/2003	13.5	11	1.3	2.7	2.2	6.2	0.3	0.4	40.3	13.7	54.7	1.3	111.0
14/07/2003	11.8	14.5	2.2	1.8	2.6	6.6	1.1	1.1	34.8	18.0	55.0	1.8	102.0
31/07/2003	11.4	14	2.4	1.6	2.4	6.4	1.3	3.7	46.0	16.7	67.7	2.0	89.5
14/08/2003	11.2	13.5	1.8	2.2	3.1	7.1	0.7	0.2	46.1	21.1	68.1	2.9	91.5
26/08/2003	11.2	13	3.0	1.0	4.0	8.0	1.0	0.2	42.8	21.7	65.7	2.9	135.5
8/09/2003	11.1	12.5	2.6	0.4	3.3	6.3	0.4	0.2	45.2	17.4	63.2	1.5	199.5
7/10/2003	11.4	13.0	2.6	1.6	2.8	7.0	0.3	0.2	54.5	17.8	72.8	1.2	157.5
21/10/2003	13.0	17.0	2.0	1.0	2.3	5.3	0.1	1.3	39.6	14.0	55.0	0.6	146.0
19/11/2003	13.9	16.0	1.7	1.3	2.8	5.8	0.3	0.1	45.6	20.0	66.0	0.8	148.0
4/12/2003	16.0	18.5	1.6	2.4	1.8	5.8	0.2	0.1	53.7	13.4	67.4	0.3	106.5
18/12/2003	17.7	17.5	1.1	3.9	3.1	8.1	0.0	0.0	49.0	20.6	69.6	0.4	151.5
13/01/2004	20.3	19.0	0.5	3.5	1.6	5.6	0.0	0.3	52.0	12.5	64.8	0.4	127.0
26/02/2004	17.2	17.0	1.4	1.7	1.6	4.7	0.0	0.1	40.9	15.5	56.5	0.7	139.0
8/03/2004	17.5	15.0	0.6	2.4	2.0	5.0	0.4	0.1	42.5	12.4	55.4	0.6	177.5
31/03/2004	16.4	16.0	0.8	5.2	1.9	7.9	0.2	0.2	78.6	11.5	90.5	1.2	159.5
14/04/2004	15.3	15.0	1.0	3.0	2.4	6.4	0.1	0.3	46.6	16.0	63.0	1.3	187.5
10/05/2004	14.7	18.0	0.6	4.4	1.8	6.8	0.1	0.2	64.7	16.8	81.8	1.2	215.0
10/06/2004	13.6	13.5	0.9	2.1	2.1	5.1	0.0	0.6	63.4	17.8	81.8	1.0	371.5
13/07/2004	11.6	12.0	1.8	3.2	2.4	7.4	0.3	4.5	37.2	19.4	61.4	1.6	193.3
26/07/2004	11.3	11.0	1.6	2.4	3.0	7.0	0.5	2.4	38.1	23.4	64.4	2.7	196.0
24/08/2004	10.9	12.5	0.8	3.2	2.7	6.7	0.0	0.5	58.5	18.6	77.6	2.3	181.5
7/09/2004	10.7	12.0	0.6	2.4	2.7	5.7	0.0	0.1	40.9	15.5	56.5	1.4	162.5
21/10/2004	11.6	15.0	1.0	3.0	2.0	6.0	0.0	0.0	33.0	13.0	46.0	0.7	185.0
2/11/2004	12.9	16.0	1.0	3.0	1.9	5.9	2.2	0.8	62.0	14.7	79.7	0.6	147.0
22/11/2004	15.1	16.0	0.7	2.3	2.1	5.1	0.1	0.2	49.7	16.4	66.4	0.4	195.0
15/12/2004	14.1	19.5	0.7	3.3	2.2	6.2	0.0	0.2	45.8	14.7	60.7	0.2	127.5

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
11/01/2005	16.0	20	0.4	2.6	1.4	4.4	0	0.1	42.9	12.5	55.5	0.2	137
25/01/2005	19.3	19.5	0.5	2.5	1.5	4.5	0.0	0.1	54.9	14.5	69.5	0.3	131.0
9/02/2005	20.7	18	2.2	0.8	1.4	4.4	0.5	0.0	38.5	12.7	51.7	0.2	136.0
22/02/2005	20.0	21.5	0.8	5.2	1.7	7.7	1.5	0.5	58.0	15.8	75.8	0.2	159.0
10/03/2005	19.3	18.5	0.2	2.8	1.4	4.4	1.8	0.2	34.0	14.5	50.5	0.4	158.0
21/03/2005	19.3	20	0.8	3.2	1.2	5.2	0.5	0.1	43.4	10.0	54.0	0.5	140.0
14/04/2005	17.9	17.2	0.9	2.1	1.6	4.6	0.8	0.2	54.0	14.0	69.0	0.7	177.0
18/05/2005	14.3	16	0.8	2.2	1.9	4.9	0.0	0.5	46.5	13.9	60.9	1.3	177.5
9/06/2005	13.0	14.1	0.6	3.4	2.2	6.2	0.1	1.6	41.3	17.4	60.4	1.3	140.5
20/06/2005	12.7	13.8	0.6	3.4	2.0	6.0	0.1	1.0	39.9	18.5	59.5	1.2	158.5
20/07/2005	11.5	13	3.9	6.1	2.5	12.5	0.8	0.8	97.4	19.1	118.1	2.1	169
3/08/2005	11.1	14	2.6	1.4	2.3	6.3	2.0	1.4	61.6	20.3	85.3	1.2	116
17/08/2005	11.2	13	3.1	1	3.2	7.3	0.3	2.1	49.6	26.4	78.4	1.7	172.5
31/08/2005	11.7	13	2	1	2.4	5.4	<1	1	69	22.2	92.2	1.3	330
14/09/2005	12.4	13	1	1	2.5	4.5	<1	<1	60	19.9	79.9	0.8	243
29/09/2005	11.9	14	1	1	2.4	4.4	<1	<1	67	18	85	0.8	253.5
12/10/2005	11.9	14	0.7	2.3	2.7	5.7	0.0	0.7	56.3	23.2	80.2	0.8	301
25/10/2005	13.4	15	0.8	4.2	1.8	6.8	0.6	0.7	54.7	16.8	72.8	0.6	193
10/11/2005	16.3	17.5	1.2	3.8	1.5	6.5	0.2	0.1	52.7	15.6	68.6	0.5	160
1/12/2005	15.1	19.3	0.6	2.4	1.4	4.4	0	0.3	39.7	16.1	56.1	0.4	141
10/01/2006	17.4	19	1	2	1.4	4.4	0.1	1	49.9	17.8	68.8	0.5	167
2/02/2006	20.2	15.5	1.1	8.9	1.5	11.5	0.0	0.0	54	18	72	1.1	193.5
1/03/2006	19.5	15.3	0.3	7.7	1.6	9.6	0.0	1.3	38.7	18.5	58.5	0.9	160.5
12/04/2006	16.7	15.8	0.6	2.4	1.6	4.6	0.0	0.0	43	20.4	63.4	1.0	230
27/04/2006	16.3	17	1.0	2	1.6	4.6	0.1	0.0	52.9	17.6	70.6	1.1	196.5
9/05/2006	15.7	17.5	0.7	2.3	1.6	4.6	0.7	0.1	46.2	17.2	64.2	0.9	233
30/05/2006	14.2	18.2	0.8	2.2	1.6	4.6	1.8	0.9	61.3	16.6	80.6	1.3	233
27/06/2006	11.9	15.2	0.8	3.2	1.9	5.9	0.8	1.3	61.9	23.2	87.2	2	243
11/07/2006	11.5	13.5	1.4	5.6	2.3	9.3	0.2	1.7	93.1	21	116	1.7	209
25/07/2006	11.1	12	1.0	0	2.1	3.1	0.9	7.4	48.7	17.6	74.6	2.8	192
4/09/2006	11.1	11	1.8	1.2	2.5	5.5	0.0	0.6	31.4	24.5	56.5	2.8	218
26/09/2006	11.9	17.5	1.0	0.8	2.3	4.1	0.0	0.1	39.9	18.6	58.6	0.8	347
18/10/2006	11.7	13	0.8	1.2	2.5	4.5	0.0	0.3	35.7	18.2	54.2	0.9	227.5
1/11/2006	12.4	14.5	0.3	2.7	2.4	5.4	0.0	0.0	41	19.4	60.4	0.8	203
5/12/2006	14.7	16	0.0	3	2	5	0.0	0.0	52	20.2	72.2	0.7	186
19/12/2006	15.6	15.5	0.2	1.8	1.8	3.8	1.0	0.1	48.9	15.4	65.4	0.7	150
9/01/2007	16.5	13.5	0.5	1.5	1.6	3.6	0.9	0.4	60.7	15	77	0.3	207
25/01/2007	18.5	14.5	0.6	0	1.6	2.2	1.5	0.5	59	18.6	79.6	0.3	212
8/02/2007	19.3	16	0.6	0	1.6	2.2	0.4	0.5	58.1	16.8	75.8	0.4	156
21/02/2007	19.6	18.2	0.4	0	1.8	2.2	0.8	0.5	68.3	24.4	94	0.3	182
21/03/2007	18.6	16.5	1.1	0	2.1	3.2	1.8	1.3	47.2	22.1	72.4	0.8	175
3/04/2007	18.0	19	0.9	6.1	1.8	8.8	0.6	0.3	66.9	23.8	91.6	0.7	
19/04/2007	16.5	16	0.9	3.1	2.7	6.7	2.4	1.0	69.6	29.2	102.2	0.6	193

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
8/05/2007	19.3	16	1.1	3.9	1.2	6.2	0.3	0.4	63.3	17.8	81.8	1.2	169
22/05/2007	15.2	18.5	0.7	2.3	1.3	4.3	2.0	0.5	53.5	15.4	71.4	0.8	201
14/06/2007	13.6	18	0.6	2.4	1.8	4.8	4.0	0.8	65.2	21.8	91.8	1	159
27/06/2007	12.4	18.5	0.8	0.2	3.6	4.6	2.1	1.4	45.5	25.8	74.8	1.2	162
18/07/2007	11.4	14.5	1.1	1.9	2.9	5.9	1.3	1.0	44.7	37.8	84.8	1.7	
8/08/2007	11.1	14	1.1	1.9	2.8	5.8	2.0	2.2	46.8	28.2	79.2	1.3	229
23/08/2007	11.0	13	0.8	2.2	2.5	5.5	0.4	0.4	39.2	30.3	70.3	2.2	202
11/09/2007	11.0	11	1	4	3.3	8.3	0	1	67	34.7	102.7	1.4	324
9/10/2007	12.1	15	1	1	2.6	4.6	1.4	1.5	59.1	23.8	85.8	0.8	184
30/10/2007	12.8	16	1.1	0.9	2.4	4.4	1.2	0.6	64.2	30.5	96.5	0.7	253
15/11/2007	13.5	14	1.8	2.2	2.1	6.1	1.8	0.3	53.9	24.8	80.8	0.5	262
4/12/2007	16.6	15	0.9	2.1	2	5	0.9	0.6	40.5	20.6	62.6	0.3	196
20/12/2007	17.4	17.5	1.1	2.9	1.1	5.1	0.2	0.4	44.4	17	62	0.6	112
17/01/2008	21.1	22.5	1	4	1.5	6.5	0.9	0.4	62.7	24.5	88.5	0.3	230
31/01/2008	19.8	21.5	0.5	1.5	1.3	3.3	1.5	0.3	75.2	17.6	94.6	0.3	190
14/02/2008	19.9	25	0.3	1.7	1.6	3.6	1.4	0.7	75.9	19.8	97.8	0.4	138
27/02/2008	19.3	22	0.1	1.9	1.6	3.6	0.7	0.2	70.1	20	91	0.4	143
13/03/2008	18.8	22	1	1	1.2	3.2	1.2	0.6	56.2	19.6	77.6	0.5	147
26/03/2008	19.3	19	1	0	0.9	1.9	0.4	0.5	63.1	17.1	81.1	0.5	160
17/04/2008	17.8	20.5	1.2	0.8	1.3	3.3	1.1	1	51.9	14.2	68.2	0.8	189
7/05/2008	15.7	16	0.7	2.3	1.5	4.5	1.3	0.3	60.4	21.1	83.1	0.6	189
22/05/2008	14.7	17	0.2	1.8	1.5	3.5	0.4	0.4	71.2	23.6	95.6	0.7	191
5/06/2008	13.6	15	1.3	0.7	1.6	3.6	1	2.1	29.9	17.5	50.5	1	177
19/06/2008	12.9	16.5	0.5	1.5	1.6	3.6	2	0.7	34.3	29.2	66.2	1.2	259
1/07/2008	12.0	14	0.9	2.1	2.15	5.15	0.6	0.7	50.7	34.6	86.6	1.7	242
15/07/2008	11.4	13	1.3	1.7	2.7	5.7	0.0	0.9	38.1	26.5	65.5	1.9	193
7/08/2008	11.1	12.5	1.8	1.2	3.4	6.4	0.0	0.7	25.3	28.8	54.8	3.0	119
20/08/2008	10.7	12.5	1.3	1.7	2.1	5.1	0.7	0.6	24.7	25	51	1.5	179
4/09/2008	11.0	13	0.6	3.4	2	6	1.0	0.0	50	21.5	72.5	1.1	217
16/09/2008	11.3	14.5	1.4	2.6	2.1	6.1	2.2	0.5	28.3	24.3	55.3	0.7	202
14/10/2008	12.6	12.2	0.5	2.5	2.6	5.6	0.5	0.0	45.5	27.1	73.1	0.6	203
4/11/2008	13.4	12	1.0	4	2.5	7.5	3.2	0.5	35.3	28.5	67.5	0.9	140
26/11/2008	15.7	10	1.1	1.9	2.4	5.4	0.4	0.0	47.6	27.6	75.6	1	217
22/12/2008	18.8	12	0.3	1.7	2.3	4.3	1.8	0.0	53.2	35.2	90.2	0.6	245
13/01/2009	19.7	13	1.4	1.6	2.1	5.1	0.3	1.4	61.3	29.4	92.4	0.5	266
28/01/2009	20.9	18	0.4	4.6	1.8	6.8	0.0	3.8	52.2	27.6	83.6	0.3	204
11/02/2009	21.4	22	0.1	4.9	1.6	6.6	4.1	0.5	49.4	25.6	79.6	0.4	185.5
25/02/2009	20.5	20	0.5	2.5	1.6	4.6	2.7	0.4	37.9	21.3	62.3	0.5	186.5
26/03/2009	18.0	18.5	1.1	1.9	2.7	5.7	0.0	1.3	56.7	25.1	83.1	0.6	285
15/04/2009	16.6	18	1.5	2.5	3.4	7.4	1.1	0.7	60.8	22.7	85.3	0.8	240
7/05/2009	15.0	16	1.4	4.6	2.3	8.3	1.3	1.1	56.6	21.7	80.7	1.3	223
27/05/2009	13.0	15	1.2	4.8	1.5	7.5	0.0	0.6	58.4	16.7	75.7	1.2	190
18/06/2009	11.6	16	1.9	0.1	1.7	3.7	0.7	1.7	45.6	23.5	71.5	1.5	201
6/07/2009	10.9	15	2.8	1.2	2.4	6.4	0.1	8.1	46.8	23.4	78.4	1.6	190
13/08/2009	10.43	12	1.9	2.1	2.7	6.7	0.6	0.5	46.9	31.4	79.4	1.9	230
7/09/2009	10.56	15	4.2	0	2.9	7.1	0.1	0.6	54.3	32.3	87.3	1.5	301

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	Chl-a at 50m	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
19/10/2009	11.72	13	4.2	0	2.7	6.9	0.5	1.1	42.4	23.4	67.4	0.6	0.8	282.5
12/11/2009	13.00	12.5	1.2	2.8	2.4	6.4	1.0	0.3	33.7	19.5	54.5	0.7	0.8	249
17/12/2009	16.99	15	0.9	2.1	1.4	4.4	0.0	0.7	58.3	21	80.0	0.7	0.8	239.5
13/01/2010	17.89	14.5	0.6	1.4	1.8	3.8	0.0	1.0	47	21.6	69.6	0.6	1.2	306.5
2/02/2010	19.23	16	0.7	2.3	1.7	4.7	0.0	0.1	55.9	28.3	84.3	0.8	1.2	274.5
18/02/2010	20.45	17	1.1	1.9	3.9	6.9	1.3	2.3	102.4	85.4	191.4	0.9	1.1	530
10/03/2010	20.10	19	0.8	2.2	1.3	4.3	0.0	4	58	19.1	81.1	0.4	0.9	158.5
8/04/2010	17.40	21.5	0.8	2.2	1.7	4.7	0.0	1.2	58.8	26	86.0	0.7	1.3	231
28/04/2010	16.38	19	1.2	1.8	2.5	5.5	0.3	1.1	61	39.6	101.6	0.9	1.3	262
20/05/2010	15.09	19.5	1.9	1.1	2.1	5.1	7.6	2.5	66.9	25.1	102.1	0.9	0.8	248
3/06/2010	14.11	14.5	0.9	2.1	1.8	4.8	1.1	0.1	44.8	13.7	59.7	1.1	0.7	141.5
23/06/2010	12.23	14	1.1	1.9	2.4	5.4	1.1	0.8	46.1	22.1	70.1	1.1	0.7	196.5
13/07/2010	11.31	14.5	1.5	7.5	2.3	11.3	0.9	1.0	52.1	27.9	81.9	1.7	0.8	217
10/08/2010	11.01	12.8	1.7	1.3	2.6	5.6	0.9	1.0	30.1	29.7	61.7	1.9	2.0	225
24/08/2010	10.92	11	1.6	1.4	1.5	4.5	0.6	0.5	30.9	34.5	66.5	2.4	2.5	244.5
13/09/2010	11.37	10.5	1.1	0.9	3.3	5.3	1.3	0.3	28.4	33.7	63.7	1.6	1.6	342.5
5/10/2010	11.90	10.8	3.1	0	2.5	5.6	2.0	2.3	28.7	22.8	55.8	0.9	1.6	269
26/10/2010	13.00	12.5	1.7	1.3	2.4	5.4	0.9	0.9	34.2	18.2	54.2	0.8	1.7	237
10/11/2010	13.98	11.5	0.8	2.2	2.3	5.3	0.5	0.3	59.2	21.1	81.1	0.7	1.8	250.5
25/11/2010	16.14	14.2	1.4	2.6	1.7	5.7	2.9	1.4	41.7	18	64.0	0.4	2.0	184.5
8/12/2010		15.5	1.2	2.8	1.8	5.8	1.8	0.6	43.6	18.3	64.3	0.4	0.9	181
21/12/2010	18.41	17	0.8	3.2	1.8	5.8	5.7	0.4	66.9	41.4	114.4	0.4	0.9	259.5
11/01/2011	19.81	11	0.8	1.2	1.9	3.9	1.8	0.5	48.7	27.1	78.1	0.5	0.4	281.5
27/01/2011	19.69	17	1.0	1	1.7	3.7	1.4	0.7	45.9	21.5	69.5	0.4	0.7	178.5
17/02/2011	20.61	12	0.9	1.1	2.1	4.1	0.5	0.5	57	23.6	81.6	0.5	0.7	224
1/03/2011	20.41	19	0.5	2.5	1.5	4.5	0.7	0.9	48.4	19.9	69.9	0.6	0.3	150.5
15/03/2011	20.07	15	3.0	0	1.4	4.4	0.2	2.7	50.1	21.6	74.6	0.5	0.6	179.5
13/04/2011	17.62	17	3.1	0	1.5	4.6	0.0	0.8	64.2	24.7	89.7	0.8	0.6	223
10/05/2011	15.53	16.5	1.4	2.6	1.5	5.5	0.9	0.9	74.2	17.5	93.5	0.7	0.7	207
31/05/2011	14.05	17	1.2	0.8	1.6	3.6	0.3	0.8	44.9	22.5	68.5	0.9	0.6	166.5
22/06/2011	12.95	14	0.4	1.6	2	4	1.1	0.4	42.5	22	66	1.0	0.9	190.5
5/07/2011	12.13	13	1.0	1	1.8	3.8	0.0	0.2	41.8	28.8	70.8	1.3	1.2	233
9/08/2011	11.10	16	1.8	1.2	2.3	5.3	3.4	5.0	75.6	24.7	108.7	1.7	1.9	346
24/08/2011	10.86	9	1.6	1.4	2.8	5.8	1.0	0.2	86.8	39.2	127.2	1.6	2.1	311
7/09/2011	11.22	16	0.6	3.4	1.8	5.8	2.0	1.1	44.9	23.2	71.2	0.8	1.4	198
28/09/2011	10.96	13	1.0	2	2.9	5.9	2.0	0.8	59.2	32.1	94.1	1.2	1.5	341
26/10/2011	13.00	14	0.6	3.4	1.7	5.7	0.7	0.0	42.3	25.5	68.5	0.5	1.2	227
8/11/2011	14.12	14	1.1	2.9	1.2	5.2	1.3	3.0	60.7	13.3	78.3	0.4	1.0	210
22/11/2011	14.57	18	1.1	1.9	2.1	5.1	1.2	0.0	44.8	28.1	74.1	0.7	0.9	202
8/12/2011	16.80	18.5	0.9	2.1	1.7	4.7	3.3	0.8	58.9	27.3	90.3	0.6	1.0	292
22/12/2011	18.22	13	0.6	0.4	1.6	2.6	2.0	2.4	63.6	22.9	90.9	0.5	0.9	323
12/01/2012	19.15	16.5	1.3	0.7	1.8	3.8	4.9	0.3	53.8	42.8	101.8	0.4	1.0	304
26/01/2012	19.02	15	0.9	2.1	1.4	4.4	3.7	0.5	41.8	29.4	75.4	0.5	0.9	245
16/02/2012		16	0.6	1.4	1.6	3.6	2.5	0.7	55.8	22.5	81.5	0.6	0.8	235
7/03/2012	18.17	16	0.7	1.3	1.6	3.6	0.8	1.0	54.2	24.5	80.5	0.6	1.2	230
10/04/2012	16.78	17	0.9	1.1	2.5	4.5	1.9	2.3	54.8	26.5	85.5	0.8	1.0	221
7/05/2012	15.06	17	0.8	2.2	1.5	4.5	2.7	0.8	73.5	20.1	97.1	0.7	1.0	235
30/05/2012	13.41	17	3.3	1.7	2.2	7.2	3.4	0.9	59.7	31.6	95.6	1.1	0.8	200
14/06/2012	12.64	14	2.0	3	1.8	6.8	2.6	0.1	54.3	30.1	87.1	1.0	0.8	218
2/07/2012	11.63	15.5	2.3	0	1.7	4	2.8	2.3	91.9	22.5	119.5	1.2	1.8	215

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	Chl-a at 50m	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
18/07/2012	11.44	17	2.2	1.5	2.1	5.8	2.3	1.3	54.4	34.5	92.5	1.3	1.7	284
1/08/2012	10.85	17	3.7	1.3	1.9	6.9	0.8	8.8	56.4	22.3	88.3	1.5	1.5	140
17/08/2012	11.06	14	2.2	1.6	2.5	6.3	2.6	1.8	48.6	28.2	81.2	1.4	1.2	190
29/08/2012			1.4	2.6	1.8	5.8	4.9	1.7	56.4	30.6	93.6	1.3	1.0	252
20/09/2012	11.14	13	3.4	0	4.0	7.4	0.6	0.4	53	39.0	93	1.1	1.6	576
4/10/2012	11.45	12.5	2.1	0.9	2.6	5.6	0.4	1.1	51.5	26.3	79.3	1.2	2.1	269
24/10/2012	12.25	13.6	1.8	1.2	2.4	5.4	1.0	0.6	45.4	28.1	75.1	1.0	1.3	265
8/11/2012	13.44	17	1.2	2.8	1.8	5.8	1.3	0.6	41.1	17.7	60.7	0.5	1	173
22/11/2012	16.44	18	0.9	3.1	1.6	5.6	2.1	0.3	57.6	21.2	81.2	0.4	1	201
6/12/2012	14.96	19	0.7	1.3	2.3	4.3	0.6	0.8	44.6	23.5	69.45	0.6	0.9	148
19/12/2012	17.75	19	1.0	2	1.6	4.6	1.9	2.5	95.6	28.9	128.85	0.6	1.7	222
23/01/2013	19.00	15.8	0.3	1.7	1.5	3.5	0.5	0.1	53.4	22.3	76.3	0.6	0.9	273
7/02/2013	18.81	15	0.2	1.8	1.9	3.9	1.3	0.4	83.3	42.8	127.8	0.6	1.1	333
21/02/2013	20.41	19	1.1	0.9	2.1	4.1	3.7	0.5	87.8	27.5	119.5	0.3	1.1	242
6/03/2013	20.00	21	1.0	2	1.8	4.8	5.0	1.0	113	35.6	154.6	0.6	1	253
20/03/2013	19.5	14	0.2	2.7	2.4	5.3	4.1	0.2	86.7	39.8	130.8	0.7	0.7	543
4/04/2013	19.57	18	1.3	2.7	2.9	6.9	3.3	0.6	100.1	39.3	143.3	1	0.7	300
22/04/2013	17.48	14.7	6.4	2.6	2.7	11.7	2.0	2.9	73.1	36.9	114.9	1.4	0.7	300
7/05/2013	16.50	14.3	2.4	1.6	2.6	6.6	5.0	1.1	127.9	60.1	194.1	1.5	0.2	398
23/05/2013	15.25	15	1.3	2.7	3	7	1.4	0.6	76	51.8	129.8	1.4	0.5	345
6/06/2013	14.00	14.5	1.1	2.9	2	6	2.5	1.0	95.5	41.3	140.3	1.7	0.5	363
19/06/2013	13.20	15.0	1.2	0.8	2.1	4.1	1.9	0.5	80.6	37.8	120.8	1.2	1.2	318
22/07/2013	11.50	14	1.2	1.5	2.5	5.2	4.0	5.6	70.4	24.4	104.4	1.6	1.8	242
6/08/2013	11.54	12	1.4	0.6	3.5	5.5	2.4	0.6	51.0	31	85	1.9	1.7	223
21/08/2013	11.21	12.8	3.1	0.9	3.1	7.1	2.9	3.5	60.6	41.4	60.6	1.9	1.9	354.5
3/09/2013	11.20	11.5	2.8	2.3	3.7	8.8	2.6	1.1	89.3	50.1	143.1	2.3	2.4	417
18/09/2013	11.56	12	2.2	2.4	3.2	7.8	4.8	0.6	76.6	36.9	118.9	1.8	2.2	166
2/10/2013	11.73	12	4.5	0.5	3.1	8.1	1.5	0.2	62.3	33.3	97.3	1.7	2.1	295
21/10/2013	12.81	11	3.3	0.7	3.5	7.5	3.1	1.9	61	32.9	98.9	1.1	1.8	254
7/11/2013	13.53	10	3.0	3	3.6	9.6	1.6	0.7	63.7	48	114	1.3	1.4	380.5
20/11/2013	16.69	9	1.3	3.7	3	8	2.2	0.3	74.5	41.2	118.2	0.9	0.7	356.5
2/12/2013	17.41	10	1.1	3.9	3.1	8.1	2.5	0.4	56.1	38.5	97.5	1.2	0.9	305.5
8/01/2014	18.54	12	1.4	3.6	2	7.0	5.7	0.5	121.8	39.6	167.6	1.1	1.1	347.5
28/01/2014	18.06	13	1.7	1.3	1.3	4.3	3.4	1.4	117.2	19.8	141.8	1.0	0.8	289
12/02/2014	18.55	13.5	1.4	2.6	2.8	6.8	6.8	0.7	110	43.4	160.9	0.9	0.8	382
25/02/2014	19.16	15	0.2	2.8	2.35	5.4	2.9	0.3	76	27.7	106.9	0.8	0.9	256.5
12/03/2014	19.05	18	0.4	2.6	2.45	5.5	11.8	0.9	163.4	34.9	210.9	0.7	1.1	267
27/03/2014	18.21	14.5	0.9	3.1	2.2	6.2	1.9	0.9	92.2	33.8	128.8	1.0	1.1	375
9/04/2014	18.60	16.5	1.0	2	1.9	4.9	6.1	0.8	113.1	28.8	148.8	0.9	0.8	297.5
23/04/2014	17.42	14.8	1.2	1.8	1.8	4.8	1.3	1.1	88.6	20.5	111.5	1.1	0.8	213
8/05/2014	16.32	17.7	0.8	2.2	1.8	4.8	0.7	0.3	50	22.9	73.9	1.0	0.6	210.5
20/05/2014	15.41	16	0.5	2.5	1.6	4.6	2.4	0.2	52.4	18.1	73.1	0.9	0.6	228
5/06/2014	14.01	12	1.1	1.9	1.9	4.9	1.3	0.4	71.3	28.5	101.5	1.1	0.8	318.5
19/06/2014	13.38	14	0.6	2.4	2.15	5.2	3.7	0.9	65.4	32.6	102.6	1.5	1.6	292
1/07/2014	12.86	12.75	0.9	2.1	2	5	2.0	3.0	67.0	26.7	98.7	1.6	1.9	222
21/07/2014	11.76	15.5	2.4	1.6	1.8	5.8	2.7	7.6	38.7	24.6	73.6	1.7	1.1	221

Date Collected	Temp. ºC	Secchi (m)	DRP (mg m^{-3})	DOP (mg m^{-3})	PP (mg m^{-3})	TP (mg m^{-3})	NH_4-N (mg m^{-3})	NO_3-N (mg m^{-3})	DON (mg m^{-3})	PN (mg m^{-3})	TN (mg m^{-3})	Chl-*a* (mg m^{-3})	Chl-a at 50m (mg m^{-3})	PC (mg m^{-3})
1/08/2014			2.2	1.8	3.5	7.5	1.5	1.8	64.7	45	113	2.7	2.8	353.5
26/08/2014	11.51	11	1.5	1.5	3.4	6.4	4.0	0.8	132.2	46.6	183.6	2.0	3.2	350.5
9/09/2014	12.08	11.25	0.7	2.3	3.0	6	1.0	3.2	47.8	27.5	79.5	3.8	3.4	336.5
8/10/2014	11.15	14	1.1	1.9	1.5	4.5	2.7	0.9	54.4	19.7	77.7	1.4	1.5	413
20/10/2014	12.91	13	0.8	2.2	0.75	3.8	5.1	0.4	78.5	19.5	103.5	0.9	1.7	238.5
5/11/2014	13.34	15	1.6	0.4	0.9	2.9	2.9	1.8	37.3	10.3	52.3	0.8	0.9	166.5
25/11/2014	14.64	12	1.6	1.4	1.3	4.3	2.9	0.4	74.7	20.3	98.3	0.4	0.6	222.5
17/12/2014	15.42	15	0.6	2.5	1.55	4.65	<1	<0.5	52.5	17	71	0.41	0.615	169
15/01/2015	20.36	16	1	2	1.475	4.475	6	1	45.0	23.25	75.25	0.515	0.71	237
29/01/2015	20.91	17.25	<0.5	3.5	1.6	5.6	4	<0.5	71.5	37.5	113.5	0.41	0.55	215.5
12/02/2015	19.47	17	0.6	1.4	1.2	3.2	1.2	0.2	51.6	15.2	68.2	0.6	1.2	220
26/02/2015	20.00	18	0.8	1.2	2	4.0	7.5	0.0	149.5	25.75	182.75	0.5	0.7	199
9/03/2015	20.08	18	1.0	2	1.7	4.7	7.5	1.1	85.4	27.55	121.55	0.6	1.1	254.5
25/03/2015	19.10	18	1.0	2	2	5	0.0	1.3	64.7	26.5	92.5	0.6	0.6	282.5
9/04/2015	no profile		0.8	1.2	1.3	3.3	3.6	0.2	103.2	16.95	123.95	0.9	1.0	233
22/04/2015	17.10	17.25	0.6	2.4	2.3	5.3	1.3	0.5	77.2	26.45	105.45	1.0	1.1	243.5
12/05/2015	15.70	13	1.1	2.9	2.8	6.8	3.7	1.0	98.3	51.2	154.2	1.1	0.84	340
27/05/2015	13.90	12	1.5	1.5	2.25	5.25	3.2	0.6	91.2	33.3	128.3	1.2	1.205	269
18/06/2015	12.30	16.25	1.8	1.2	2.15	5.15	3.7	0.7	89.6	36.8	130.8	1.3	1.2	230.5
2/07/2015	11.59	14.25	1.7	2.3	2.85	6.85	6.8	1.5	85.7	55.55	159.55	1.7	0.8	433.5
30/07/2015	11.04	13.00	2.3	1.7	3.05	7.05	0.8	1.0	102.2	37.55	74.55	2.7	NA	202.5
13/08/2015	10.86	10.00	1.6	3.4	3.15	8.15	3.4	1.7	31.9	38.3	102.3	2.2	2.4	244
27/08/2015	10.78	12.50	1.7	2.0	2.25	5.95	1.6	0.1	62.3	21.4	69.4	1.2	1.6	161.5

Lake Taupo cumulative database of 10 m tube sample data
Samples collected from Kuratau Basin (Site B)

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	°C	m	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
8/01/2002	18.1	13.5	0.4	2	2.2	4.6	0.4	1.3	48	16.7	66.4	0.9	233
22/01/2002	18.8	12	0.9	2	2.6	5.5	0.9	0.3	41	19.9	62.1	0.9	221
6/03/2002	18.6	14.5	0.3	2	2.3	4.6	1.4	0.5	73	18.3	93.2	0.9	207
4/04/2002	17.4	19.5	0.6	2	1.5	4.1	0.4	0.1	40	11.2	51.7	0.9	162
17/04/2002	16.8	19	0.0	3	1.6	4.6	0.5	0.1	45	12.3	57.9	0.9	143
5/05/2002	15.1	13.2	0.3	1.1			1.6	0.4	40			0.9	
19/06/2002	12.5	15	1.0	1	2.2	4.2	0.4	0.8	48.2	17.4	66.8	1.5	182
1/07/2002	12.1	16	1.5	1.5	1.8	4.8	0.8	1.7	41.5	14.2	58.2	1.6	146
17/07/2002	11.5	12.5	1.8	2.2	2	6	0.8	5.1	51.1	16.1	73.1	1.5	156.5
31/07/2002	11.3	10.5	2.0	3	2.5	7.5	1.5	2.2	81.5	18.5	103.7	2.6	194.5
29/08/2002	11.0	8	1.2	4.8	3.3	9.3	0	0.2	184.0	22.9	207.1	2.3	221
18/09/2002	11.1	11	1.9	2.1	2.1	6.1	0.4	0.6	43.4	14	58.4	1.1	149
9/10/2002	11.7	16	1.4	1.6	1.7	4.7	4.4	0.2	19.6	11.7	35.9	0.5	149
13/11/2002	12.0	14	1	3	2.5	6.5	0.3	0	35	15.2	50.5	1.8	478
28/11/2002	13.8	12.7	0.9	2.9	2	5.8	0	0	40	16.7	56.7	0.7	203.5
18/12/2002	15.2	14	0.6	1.4	2.1	4.1	0	0.1	36	11.2	47.3	0.4	143
30/01/2003	16.8	18	0.5	2.5	1.7	4.7	<1	0.8	43	12.1	55.9	0.6	148.5
13/02/2003	18.8	11	0.7	1.3	1.6	3.6	0.4	0.2	45	9.3	54.9	0.7	131
17/03/2003	18.7	14	0.5	3.5	2	6	<1	0.7	49	16.3	66.0	1.0	208
3/04/2003	19.0	12.8	0.6	3.4	2.1	6.1	<1	0.1	50	19.6	69.7	1.1	239.5
28/04/2003	16.7	13.5	0.6	3.4	1.6	5.6	<1	0.2	57	13.1	70.3	1.4	218.5
15/05/2003	15.7	15.5	0.4	3.6	1.8	5.8	<1	0.2	63	13.5	76.7	1.7	229.5
12/06/2003	12.5	12	1.7	1.3	2.2	5.2	0.1	2.8	39.1	13.9	55.9	1.3	
14/07/2003	11.8	12	1.7	2.3	2.2	6.2	0.9	1.9	39.4	15.9	58.1	1.7	96.5
31/07/2003	11.3	13	2.1	1.9	2.7	6.7	1.2	2.0	43.8	18.0	65.0	2.1	108.5
14/08/2003	11.4	13	1.8	2.2	3.3	7.3	0.3	0.3	33	22.3	55.9	2.5	112.0
26/08/2003	11.3	11.5	3.1	0.9	4.0	8	0.4	0.1	37	22.4	59.9	3.1	148.0
8/09/2003	11.1	11	2.5	1.5	3.3	7.3	0.4	0.1	36	23.5	60.0	1.4	196.5
7/10/2003	11.7	9.5	2.3	1.7	3.0	7.0	0.0	0.1	49.9	20.5	70.5	1.2	185.5
21/10/2003	13.2	15.0	2.2	0.8	2.7	5.7	0.3	0.2	38.5	14.9	53.9	0.8	155.5
19/11/2003	13.8	17.0	1.6	2.4	2.4	6.4	0.0	0.1	51.0	14.6	65.7	0.6	139.5
4/12/2003	15.6	17.0	1.8	2.2	1.8	5.8	0.2	0.1	44.7	13.5	58.5	0.4	126.5
18/12/2003	17.0	15.0	0.5	3.5	1.9	5.9	0.0	0.2	56.0	12.4	68.6	0.5	145.5
13/01/2004	20.3	16.0	0.4	4.6	1.8	6.8	0.0	0.2	54.0	13.7	67.9	0.5	125.0

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
26/02/2004	16.8	13.5	1.1	1.9	1.8	4.8	0.6	0.1	42.3	15.8	58.8	0.8	157.0
8/03/2004	17.6	5.0	0.8	2.2	3.1	6.1	1.0	0.3	41.7	17.5	60.5	0.9	172.0
31/03/2004	15.9	11.0	0.8	3.2	1.8	5.8	0.7	0.2	45.1	9.9	55.9	1.4	124.5
14/04/2004	15.0	14.0	0.9	4.1	2.2	7.2	0.6	0.3	52.1	14.9	67.9	1.3	171.5
10/05/2004	14.7	15.5	0.8	2.2	1.7	4.7	0.0	0.2	59.8	15.9	75.9	1.3	179.0
10/06/2004	12.9	12.0	1.4	2.6	2.1	6.1	0.0	0.2	108.8	18.6	127.6	1.2	183.0
13/07/2004	11.4	11.0	2.1	2.9	2.5	7.5	0.0	8.4	40.6	19.3	68.3	1.4	154.0
26/07/2004	11.2	10.0	1.3	2.7	3.2	7.2	0.2	5.8	38.0	25.0	69.0	2.7	204.0
24/08/2004	10.9	10.0	0.7	3.3	3.1	7.1	0.0	0.0	47.0	20.9	67.9	2.5	158.0
7/09/2004	10.8	11.0	0.7	2.3	2.6	5.6	0.0	0.2	44.8	17.1	62.1	1.5	172.5
21/10/2004	11.7	11.0	1.2	1.8	2.1	5.1	0.2	0.0	30.8	16.1	47.1	0.8	172.5
2/11/2004	13.1	15.0	1.0	2.0	1.7	4.7	0.2	0.1	42.7	11.0	54.0	0.5	152.0
22/11/2004	14.9	15.0	0.6	3.4	1.6	5.6	0.6	0.0	33.4	9.5	43.5	0.5	141.5
15/12/2004	13.2	17.2	0.6	3.4	1.6	5.6	0.4	0.1	39.5	12.6	52.6	0.2	120.0

Lake Taupo cumulative database of 10 m tube sample data

Samples collected from Western Bays (site C)

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	°C	m	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
8/01/2002	18.72	14.5	0.9	4	2.3	7.2	0.9	0.6	88	16.1	105.6	0.8	213
22/01/2002	18.82	15.5	0.7	2	2.2	4.9	0.7	0.0	37	16.8	54.5	0.8	221
6/03/2002	18.68	16	0.2	2	2	4.2	0	0.1	45	16	61.1	0.7	177
4/04/2002	17.47	19	0.6	2	1.4	4	0.0	0.0	38	8.8	46.8	0.9	152
17/04/2002	16.88	18.5	0	3	1.6	4.6	0.7	0.2	44	11.8	56.7	0.9	167
5/05/2002	15.6	15.6	0.4	1			2	0.2	45			1.1	
19/06/2002	12.58	16	0.9	2.1	2	5	0.3	1.2	38.8	15.9	56.2	0.9	161
1/07/2002	12.22	14	1.3	1.7	1.9	4.9	0.3	0.4	45	15	60.7	1.4	148
17/07/2002	11.52	12.5	1.9	2.1	2	6	0.9	4.9	46.1	16.3	68.2	1.5	160
31/07/2002	11.6	12	2.3	2.7	2.3	7.3	1.7	4.0	113.3	16.7	135.7	2.3	150
29/08/2002	11.4	8	1	3	3.2	7.2	0	0	177	22.3	199.3	2.4	217
18/09/2002	11.24	12	2.8	2.2	2	7	1.7	0.4	45.3	11.7	59.1	0.9	152
9/10/2002	12.10	19	1.5	1.5	1.7	4.7	0.3	0.2	28	10.2	38.7	0.4	116
13/11/2002	12.60	16	1.1	2.9	2	6	0.1	0	51	12.2	63.3	0.6	141
28/11/2002	13.90	15.5	0.9	2.1	2	5	0.4	0.4	40	14.4	55.2	0.8	125.5
18/12/2002	15.10	13.5	0.8	2.2	1.9	4.9	0	0.3	45	10.2	55.5	0.5	136.5
30/01/2003	17.60	18.5	0.5	2.5	1.5	4.5	<1	0.1	46	8.6	54.7	0.4	141.5
13/02/2003	19.50	19	0.6	1.4	1.6	3.6	0	0.1	42	8.4	50.5	0.5	104
17/03/2003	18.70	15	0.5	2.5	1.7	4.7	<1	0.4	46	14.6	61.0	1.1	215
3/04/2003	18.80	14.5	0.5	2.5	1.6	4.6	<1	0.4	49	16.5	65.9	1.2	204
28/04/2003	17.00	14.5	0.4	2.6	1.4	4.4	<1	0.4	54	12.2	66.6	1.5	191
15/05/2003	15.60	17	0.1	3.9	2.2	6.2	<1	0.1	56	18	74.1	1.3	197
12/06/2003	13.70	11	1.3	1.7	2	5	0.1	0.9	40	13.8	54.8	1.3	
14/07/2003	11.80	14	1.9	2.1	2	6	1	4.7	39.3	14.9	59.9	1.5	85.0
31/07/2003	11.40	12	3.1	5.9	2.8	11	0.1	4.0	55	20.3	79.4	2.3	101.5
14/08/2003	11.50	14.5	2.4	2.6	2.9	7.9	1.1	3.8	46.1	19.5	70.5	2.8	92.5
26/08/2003	11.30	13	2.8	2.2	3.8	8.8	0.5	0.2	39	25.0	64.7	3.2	174.5
8/09/2003	11.30	12	2.6	0.4	3	6	0.1	0.1	40	19.5	59.7	1.3	233.0
7/10/2003	11.7	12.5	2.7	1.3	2.8	6.8	0.0	0.3	44.7	18.4	63.4	1.5	157.5

Date Collected	Temp.	Secchi	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	PN	TN	Chlorophyll *a*	PC
	ºC	(m)	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})	(mg m^{-3})
21/10/2003	13.0	12.0	1.5	1.5	3.1	6.1	0.3	0.0	44.7	17.4	62.4	1.1	195.0
19/11/2003	14.3	17.2	1.5	1.5	2.3	5.3	0.8	0.0	38.2	14.4	53.4	0.7	123.0
4/12/2003	15.5	17.0	1.7	3.3	1.7	6.7	0.0	0.2	46.8	11.2	58.2	0.5	129.0
18/12/2003	17.0	19.0	0.5	4.5	1.5	6.5	0.0	0.0	47.0	9.9	56.9	0.4	124.5
13/01/2004	20.2	17.5	0.7	4.3	1.6	6.6	0.0	0.1	53.0	11.9	65.0	0.4	118.5
26/02/2004	16.9	14.0	0.9	2.1	2.2	5.2	0.8	0.4	40.8	17.2	59.2	0.7	156.0
8/03/2004	18.4	13.0	0.8	2.2	2.0	5.0	0.7	0.1	34.2	11.1	46.1	0.6	124.0
31/03/2004	16.4	12.5	0.6	3.4	2.0	6.0	0.7	0.3	51.0	12.3	64.3	1.2	175.5
14/04/2004	15.4	16.5	0.9	3.1	2.3	6.3	0.6	0.3	50.1	14.2	65.2	1.2	159.0
10/05/2004	14.9	16.0	0.8	3.2	1.6	5.6	0.0	0.2	48.8	15.4	64.4	1.1	153.0
10/06/2004	13.1	14.0	0.8	2.2	2.0	5.0	0.0	0.2	41.8	16.6	58.6	1.0	151.0
13/07/2004	11.6	12.5	1.3	2.7	2.5	6.5	0.0	5.9	39.1	19.9	64.9	1.6	156.5
26/07/2004	11.5	11.0	1.5	2.5	2.9	6.9	0.3	2.7	46.0	22.2	71.2	2.4	180.5
24/08/2004	10.9	10.0	1.0	3.0	2.9	6.9	0.0	0.4	37.6	18.5	56.5	2.5	161.0
7/09/2004	11.1	12.0	1.2	3.8	2.6	7.6	0.0	0.0	54.0	16.8	70.8	1.5	202.0
21/10/2004	11.7	12.0	1.1	1.9	1.9	4.9	0.2	0.0	35.8	14.8	50.8	0.6	167.5
2/11/2004	12.4	17.0	1.0	3.0	1.7	5.7	0.3	1.2	45.5	16.3	63.3	0.4	173.0
22/11/2004	14.8	16.0	0.5	3.5	1.7	5.7	0.0	0.2	37.8	10.8	48.8	0.5	149.0
15/12/2004	14.2	20.8	0.9	4.1	1.4	6.4	0.0	0.0	42.0	12.2	54.2	0.2	131.0

Lake Taupo biannual nutrient database									**2014-2015**						Started 27 October 1994						
Collection date 25 November 2014						Secchi depth = 12 m															
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		$\mu S\ cm^{-1}$	^oC	$g\ m^{-3}$	$g\ m^{-3}$	$g\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$
CK1	1	7.70	118	14.55	10.03	<0.5	<0.5	0.4	0.8	2.2	0.8	3.8	1.0	<0.5	42.0	2	7.0	50.0	546	119.5	13.5
CK2	10	7.75	118	13.58	10.18	0.6	<0.5	0.8	0.8	1.2	1.2	3.2	<1.0	<0.5	47.0	<1	9.3	56.3	563	139.5	13.6
CK3	20	7.75	118	13.44	10.20	0.7	<0.5	0.9	0.9	2.1	1.3	4.3	<1.0	<0.5	40.0	<1	11.0	51.0	748	151.5	16.9
CK4	30	7.73	118	13.32	10.18	<0.5	<0.5	0.9	0.8	2.2	1.4	4.4	<1.0	<0.5	38.0	<1	10.8	48.8	584	119.5	10.6
CK5	40	7.68	118	12.57	9.93	<0.5	<0.5	0.7	1.0	2.0	1.0	4.0	<1.0	<0.5	37.0	<1	7.4	44.4	522	103.7	12.5
CK6	50	7.74	118	11.56	9.88	<0.5	<0.5	0.7	1.0	1.7	1.7	4.4	<1.0	0.5	37.0	<1	10.6	48.1	538	83.7	10.8
CK7	60	7.68	118	11.32	9.79	<0.5	<0.5	0.8	1.1	1.9	1.1	4.1	<1.0	<0.5	40.0	<1	7.4	47.4	715	74.5	8.9
CK8	70	7.68	118	11.25	9.76	<0.5	<0.5	0.7	1.1	1.9	1.4	4.4	<1.0	0.6	36.4	1	8.7	45.7	677	75.0	7.6
CK9	80	7.62	118	11.19	9.69	<0.5	<0.5	0.7	1.1	1.9	1.0	4.0	1.1	0.8	35.1	1	6.0	43.0	663	62.8	7.3
CK10	90	7.55	118	11.15	9.58	<0.5	<0.5	0.8	1.0	1.7	1.1	3.8	<1.0	1.8	35.2	<1	6.5	43.5	505	53.7	7.6
CK11	100	7.55	119	11.13	9.38	<0.5	<0.5	0.8	1.4	2.6	1.3	5.3	<1.0	5.9	36.1	1	7.8	49.8	543	50.2	7.9
CK12	110	7.56	119	11.11	9.27	<0.5	<0.5	0.8	1.5	1.5	1.2	4.2	<1.0	4.4	35.6	<1	7.2	47.2	656	86.3	8.8
CK13	120	7.46	119	11.09	9.15	<0.5	<0.5	0.8	1.9	2.1	1.5	5.5	<1.0	8.6	34.4	<1	8.0	51.0	535	65.9	8.8
CK14	130	7.59	119	11.07	9.11	<0.5	<0.5	0.9	1.8	2.2	1.7	5.7	<1.0	9.0	33.0	1	8.4	50.4	644	62.4	10.1
CK15	140	7.45	118	11.05	8.87	<0.5	<0.5	1.0	2.4	1.6	2.1	6.1	<1.0	13.7	36.3	<1	10.2	60.2	515	58.3	9.5
CK16	150	7.58	119	11.05	8.72	0.5	<0.5	1.1	2.8	2.2	1.7	6.7	<1.0	16.3	33.7	1	8.6	58.6	524	67.5	9.6
Collection date 9 April 2015						Secchi depth = not measured															
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		$\mu S\ cm^{-1}$	^oC	$g\ m^{-3}$	$g\ m^{-3}$	$g\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$
JS1	1	7.8	118	18.11	9.32	<0.5	<0.5	1.0	0.2	0.8	2.0	3.1	0.6	0.2	54.3	3	18.0	73.0	617	107.0	11.3
JS2	10	7.8	118	18.02	9.26	<0.5	<0.5	1.2	0.4	1.4	2.2	4.0	0.3	0.3	53.4	5	18.4	72.4	584	136.5	12.5
JS3	20	7.9	118	17.99	9.32	<0.5	<0.5	1.1	0.5	0.0	2.0	2.5	0.7	0.1	62.2	<1	15.0	78.0	563	108.5	9.8
JS4	30	7.8	118	15.33	9.44	<0.5	<0.5	0.7	0.4	0.9	1.5	2.8	3.4	0.1	51.5	<1	14.7	69.7	540	102.9	8.7
JS5	40	7.7	118	12.99	9.75	<0.5	<0.5	1.5	0.5	0.1	1.7	2.2	0.6	0.0	41.4	1	13.1	55.1	473	111.0	8.2
JS6	50	7.7	118	11.93	9.51	<0.5	<0.5	1.2	1.1	0.0	1.4	2.5	0.0	2.2	37.8	1	10.4	50.4	484	71.4	6.9
JS7	60	7.7	118	11.54	8.88	<0.5	<0.5	1.2	1.2	0.0	1.3	2.5	0.1	1.1	40.8	1	10.8	52.8	437	61.4	6.0
JS8	70	7.6	118	11.34	8.86	<0.5	<0.5	0.8	1.6	0.6	0.9	3.1	0.4	2.4	36.2	1	7.6	46.6	462	62.5	5.1
JS9	80	7.5	118	11.28	8.53	<0.5	<0.5	0.4	2.3	1.3	0.9	4.4	0.0	9.0	31.0	<1	6.5	46.5	440	44.7	3.9
JS10	90	7.5	119	11.23	8.36	<0.5	<0.5	0.3	4.4	0.3	0.9	5.5	0.1	12.3	31.7	1	5.9	49.9	462	50.4	3.5
JS11	100	7.6	118	11.21	8.17	<0.5	<0.5	0.3	2.5	2.2	0.8	5.5	0.0	10.4	31.6	<1	5.5	47.5	415	54.1	3.7
JS12	110	7.5	118	11.18	8.05	<0.5	<0.5	0.2	5.0	0.8	0.7	6.5	0.1	16.1	32.8	<1	5.1	54.1	500	43.0	4.7
JS13	120	7.5	119	11.16	8.07	<0.5	<0.5	0.1	8.2	0.0	1.0	9.2	0.7	24.7	34.7	<1	3.4	63.4	474	28.1	3.1
JS14	130	7.5	119	11.14	7.68	<0.5	<0.5	0.1	6.2	1.7	1.0	8.8	0.0	25.7	38.3	1	3.5	67.5	503	48.0	2.9
JS15	140	7.4	119	11.14	7.23	<0.5	<0.5	0.1	11.1	0.8	1.4	13.2	0.0	30.5	37.4	<1	7.2	75.2	494	69.0	4.9
JS16	150	7.5	119	11.14	7.03	<0.5	<0.5	0.3	15.8	0.0	1.5	17.3	0.0	39.5	37.5	<1	4.9	81.9	563	61.7	4.9

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Temp & DO data for 9 April are the average of profiles on 25 March and 21 April

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 $mg\ m^{-3}$

No actual profile taken

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database								**2013-2014**						Started 27 October 1994						
Collection date 7 November 2013					Secchi depth = 10.0 m															
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
JK1	1	7.97	120	13.53	10.3	0.6	0.3	0.7	2.3	2.1	2.0	6.4	0.3	1.2	53.5	2	15.2	70.2	563	119.5	12.0
JK2	10	7.90	121	13.42	10.3	0.9	0.4	1.3	2.0	3.1	2.9	8.0	0.0	0.1	43.9	<1	21.0	65.0	570	168.5	17.4
JK3	20	7.84	120	13.12	10.1	0.8	0.4	1.3	1.8	2.1	2.9	6.8	0.0	0.0	45.0	<1	21.2	66.2	547	167.0	18.4
JK4	30	7.84	120	12.23	9.9	0.8	0.4	1.0	1.5	2.6	2.2	6.3	0.3	0.4	46.3	<1	13.5	60.5	512	109.5	10.4
JK5	40	7.77	119	11.81	9.7	0.7	0.3	1.1	1.9	2.7	2.2	6.8	1.0	0.8	37.2	1	13.2	52.2	487	83.4	7.7
JK6	50	7.73	119	11.55	9.7	0.6	0.2	1.2	2.3	1.7	2.4	6.4	0.5	1.2	36.3	1	13.7	51.7	496	101.9	9.4
JK7	60	7.79	121	11.42	9.5	0.6	0.2	1.2	3.3	0.9	2.5	6.7	0.3	6.2	34.5	<1	12.7	53.7	530	57.1	8.9
JK8	70	7.64	121	11.30	9.3	0.6	0.2	1.0	3.8	1.6	2.3	7.7	0.3	8.3	36.4	1	12.2	57.2	477	46.8	7.9
JK9	80	7.66	121	11.23	9.2	0.6	0.2	1.0	4.4	1.2	2.3	7.9	0.2	10.7	34.1	1	11.2	56.2	483	42.5	7.5
JK10	90	7.63	121	11.19	9.0	0.5	0.1	0.9	5.0	1.1	2.3	8.4	0.0	12.3	35.7	<1	10.9	58.9	479	44.4	6.6
JK11	100	7.73	123	11.17	8.9	0.5	0.1	0.9	4.5	2.5	2.2	9.2	0.6	12.5	33.9	1	11.1	58.1	485	68.9	6.3
JK12	110	7.66	121	11.15	8.7	0.4	0.1	0.8	5.3	1.4	2.1	8.8	0.2	13.2	28.6	1	10.0	52.0	484	49.1	7.1
JK13	120	7.69	120	11.14	8.5	0.5	0.1	1.0	4.2	1.2	2.2	7.6	0.2	12.2	35.6	<1	10.0	58.0	483	38.7	7.6
JK14	130	7.67	119	11.13	8.2	0.4	0.2	0.9	4.5	1.3	2.5	8.3	0.4	14.7	34.9	<1	11.8	61.8	484	43.5	7.3
JK15	140	7.69	120	11.12	8.1	0.4	0.1	0.9	5.3	2.0	2.1	9.4	0.0	15.7	38.3	2	10.1	64.1	485	41.7	5.9
JK16	150	7.66	121	11.12	8.0	0.6	0.1	0.9	5.5	1.7	2.2	9.4	0.0	16.1	37.9	<1	11.6	65.6	494	57.2	7.3
Collection date 9 April 2014					Secchi depth = 16.75 m															
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
RQ1	1	7.91	119	18.56	9.2	<0.5	<0.5	0.6	0.6	1.4	1.0	3.0	1.9	0.1	75.0	10	11.4	88.4	721	120.5	8.8
RQ2	10	7.92	120	18.53	9.2	<0.5	<0.5	0.9	1.4	0.6	1.7	3.7	0.1	0.0	48.9	<2	16.4	65.4	672	133.5	12.1
RQ3	20	7.89	120	18.52	9.2	<0.5	<0.5	0.5	1.6	0.4	1.5	3.5	0.7	0.0	51.3	<2	14.1	66.1	697	113.0	11.4
RQ4	30	7.83	120	17.76	9.0	<0.5	<0.5	1.0	1.4	0.6	1.5	3.5	0.1	0.1	48.8	<2	14.1	63.1	644	134.5	11.0
RQ5	40	7.69	119	12.99	8.5	<0.5	<0.5	1.2	2.0	3.0	1.5	6.5	0.2	0.5	40.3	<2	13.3	54.3	497	79.7	6.8
RQ6	50	7.56	120	11.87	8.4	<0.5	<0.5	0.7	2.6	1.4	1.2	5.2	0.4	2.5	39.1	<2	8.0	50.0	457	66.8	6.1
RQ7	60	7.66	119	11.58	8.3	<0.5	<0.5	0.5	3.1	0.9	0.9	4.9	0.5	5.3	35.2	<2	5.5	46.5	462	56.5	4.8
RQ8	70	7.60	121	11.45	8.3	<0.5	<0.5	0.3	3.1	0.9	0.7	4.7	0.1	7.7	35.2	<2	4.6	47.6	434	45.5	3.6
RQ9	80	7.52	120	11.38	8.1	<0.5	<0.5	0.2	4.1	0.9	0.7	5.7	0.5	12.5	35.0	<2	5.1	53.1	433	37.8	3.5
RQ10	90	7.73	124	11.35	8.1	<0.5	<0.5	0.2	5.0	1.0	0.7	6.7	0.1	16.6	27.3	<2	5.0	49.0	440	40.4	2.9
RQ11	100	7.68	120	11.33	8.0	<0.5	<0.5	0.1	5.5	1.5	0.6	7.6	0.7	20.9	30.4	<2	4.7	56.7	443	31.2	3.5
RQ12	110	7.64	122	11.31	7.8	<0.5	<0.5	0.1	5.1	1.9	0.7	7.7	0.1	21.9	32.0	<2	4.4	58.4	436	33.2	3.1
RQ13	120	7.44	121	11.30	7.7	<0.5	<0.5	0.1	6.3	1.7	0.6	8.6	0.3	24.1	32.6	<2	4.9	61.9	461	30.3	2.7
RQ14	130	7.56	119	11.28	7.6	<0.5	<0.5	0.1	6.3	1.7	0.6	8.6	0.4	24.4	30.2	2	6.4	61.4	433	29.9	2.7
RQ15	140	7.36	122	11.27	7.2	<0.5	<0.5	0.1	7.9	1.1	0.7	9.7	0.5	32.0	30.5	<2	6.0	69.0	446	29.6	2.5
RQ16	150	7.35	122	11.26	6.7	<0.5	<0.5	0.1	8.3	1.7	1.0	11.0	0.2	35.7	33.1	<2	9.4	78.4	494	38.7	3.4
NH_4, NO_3, DON, Urea all as N				* = PN by wet digestion method, ** = PN by combustion furnace method.																	
Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}																					
New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.																					
FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.																					

Lake Taupo biannual nutrient database									**2012-2013**							Started 27 October 1994						
Collection date 24 October 2012						Secchi depth = 13.6 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
RF1	1	7.70	118	12.29	9.63	<0.5	<0.5	0.4	1.3	0.7	1.3	3.3	0.4	1.5	36.1	3	9.6	47.6	502	94.8	9.5
RF2	10	7.66	118	11.59	9.74	0.9	<0.5	1.0	0.9	1.1	2.4	4.4	0.0	0.0	36.0	<3	14.6	50.6	509	170.5	17.9
RF3	20	7.56	119	11.55	9.68	0.9	<0.5	1.0	1.4	1.6	2.7	5.7	2.2	0.0	34.8	<3	17.2	54.2	751	159.5	17.1
RF4	30	7.63	119	11.52	9.64	0.9	<0.5	1.0	0.9	1.1	2.4	4.4	0.0	0.0	34.0	<3	15.7	49.7	608	196.5	18.1
RF5	40	7.62	118	11.51	9.51	0.9	<0.5	1.0	0.8	2.2	2.3	5.3	0.0	0.0	38.0	<3	13.2	51.2	543	161.0	17.0
RF6	50	7.72	118	11.49	9.55	0.8	<0.5	1.2	1.0	2.0	2.3	5.3	0.2	0.0	33.8	<3	13.7	47.7	530	155.5	16.8
RF7	60	7.60	119	11.43	9.34	1.4	0.7	1.3	1.5	1.5	2.5	5.5	0.1	0.0	34.9	<3	14.2	49.2	527	190.5	16.5
RF8	70	7.65	118	11.37	9.41	0.8	<0.5	1.5	1.1	0.9	2.4	4.4	0.0	0.2	31.8	<3	13.8	45.8	528	134.0	16.7
RF9	80	7.58	118	11.34	9.28	0.9	<0.5	1.6	1.3	1.7	2.5	5.5	0.2	0.5	34.3	<3	15.4	50.4	511	137.5	15.7
RF10	90	7.56	119	11.29	9.29	0.9	<0.5	1.5	1.3	0.7	2.5	4.5	0.3	0.2	40.5	<3	14.4	55.4	516	145.0	18.2
RF11	100	7.49	118	11.25	9.16	0.9	<0.5	1.7	1.4	0.6	2.7	4.7	0.6	0.1	34.3	<3	15.2	50.2	530	136.0	17.4
RF12	110	7.61	118	11.18	9.13	0.9	<0.5	1.7	1.5	1.5	2.5	5.5	0.0	0.8	55.2	<3	14.6	70.6	543	125.0	17.3
RF13	120	7.54	119	11.10	8.96	0.7	<0.5	1.6	2.0	1.0	2.3	5.3	1.6	3.4	42.0	<3	12.7	59.7	504	83.1	15.0
RF14	130	7.54	119	11.00	8.97	0.7	<0.5	1.6	1.7	0.3	2.3	4.3	1.1	3.2	33.7	<3	13.0	51.0	504	105.2	14.1
RF15	140	7.55	119	10.97	8.77	0.7	<0.5	1.6	2.0	1.0	3.1	6.1	0.7	2.7	33.6	<3	14.1	51.1	503	99.2	16.8
RF16	150	7.57	119	10.91	8.57	0.8	<0.5	1.6	1.8	1.2	3.0	6.0	0.0	0.7	36.3	<3	22.3	59.3	530	110.0	18.8
Collection date 4 April 2013						Secchi depth = 18.0 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
ZE1	1	8.12	119	19.58	9.11	0.3	0.3	1.5	0.0	2.9	1.5	4.4	0.8	0.4	59.8	<3	21.9	82.9	682	154.5	20.1
ZE2	10	7.97	120	19.48	13.37	0.4	0.3	1.4	0.2	2.2	1.4	3.8	0.0	0.2	51.8	<3	16.5	68.5	619	143.5	16.8
ZE3	20	7.96	120	19.45	9.73	0.3	0.3	1.4	0.3	2.0	1.2	3.5	0.0	0.0	49.0	<3	14.6	63.6	607	122.5	16.1
ZE4	30	7.85	121	15.96	10.07	0.4	0.3	1.2	0.3	2.1	1.7	4.1	0.8	0.9	49.3	<3	16.0	67.0	618	134.0	16.3
ZE5	40	7.73	119	12.95	9.90	0.3	0.2	1.0	0.5	1.4	1.0	2.9	0.5	0.2	42.3	<3	9.4	52.4	527	94.8	11.1
ZE6	50	7.63	122	11.88	9.38	0.1	0.1	0.6	1.9	0.8	0.7	3.4	0.0	3.9	39.1	<3	5.8	48.8	483	75.7	8.6
ZE7	60	7.68	120	11.52	9.08	-	-	0.5	2.7	0.5	0.8	4.0	0.0	4.2	35.8	<3	5.1	45.1	477	116.1	9.4
ZE8	70	7.80	120	11.32	8.74	0.2	0.1	0.5	3.4	0.4	0.9	4.7	0.0	5.6	36.4	<3	5.4	47.4	485	108.0	9.0
ZE9	80	7.61	120	11.21	8.71	0.2	0.1	0.4	3.6	0.1	0.8	4.5	0.0	7.0	35.0	<3	5.2	47.2	494	100.8	8.6
ZE10	90	7.53	120	11.13	8.28	0.2	0.1	0.2	4.9	0.0	0.8	5.7	0.0	11.3	34.7	<3	7.6	53.6	473	63.1	5.7
ZE11	100	7.55	120	11.09	8.06	0.1	0.1	0.2	5.9	0.0	0.8	6.7	0.0	15.7	37.3	<3	6.0	59.0	456	50.1	6.3
ZE12	110	7.47	120	11.06	7.86	0.1	0.1	0.1	6.9	0.0	0.8	7.7	0.0	18.4	35.6	<3	5.3	59.3	477	54.2	5.9
ZE13	120	7.50	121	11.05	7.73	0.2	0.1	0.1	9.7	0.0	0.9	10.6	0.0	24.6	36.4	<3	5.5	66.5	468	63.9	6.5
ZE14	130	7.48	120	11.03	7.69	0.3	0.1	0.1	12.4	0.0	1.4	13.8	0.0	29.9	38.1	<3	6.8	74.8	464	76.8	6.7
ZE15	140	7.46	120	11.02	7.57	0.3	0.1	0.1	14.4	0.0	1.7	16.1	0.3	32.8	42.9	<3	8.0	84.0	464	65.3	7.5
ZE16	150	7.58	123	11.00	7.23	0.3	0.1	0.1	13.2	0.0	1.4	14.6	0.0	30.7	35.3	<3	6.5	72.5	474	49.7	6.7

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database									**2011-2012**						Started 27 October 1994						
Collection date 22 November 2011					Secchi depth = 18.0 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
ZH1	1	7.95	119.4	14.59	10.32	0.5	0.2	0.5	0.3	1.7	1.3	3.3	0.6	0.0	30.4	<2	10.8	41.8	550	147.4	8.7
ZH2	10	7.94	119.1	14.55	11.18	0.5	0.3	0.5	0.3	1.7	1.7	3.7	0.3	0.0	35.7	<2	11.6	47.6	552	129.9	7.1
ZH3	20	7.91	119.5	14.52	11.66	0.4	0.2	0.6	0.3	1.7	1.5	3.5	0.0	0.0	30.0	<2	11.9	41.9	555	122.8	13.1
ZH4	30	7.91	119.2	14.20	11.57	0.4	0.3	0.6	0.4	1.6	1.6	3.6	0.6	0.0	27.4	<2	12.3	40.3	550	124.9	13.5
ZH5	40	7.86	119.2	12.23	11.72	0.5	0.2	1.2	0.4	1.6	2.0	4.0	0.0	0.0	25.0	<2	14.1	39.1	542	107.6	9.6
ZH6	50	7.83	118.0	11.36	11.61	0.3	0.2	1.2	0.4	1.6	1.9	3.9	1.0	0.1	22.9	<2	13.0	37.0	526	105.2	18.2
ZH7	60	7.78	119.4	11.00	10.84	0.4	0.2	0.9	0.6	1.4	1.5	3.5	0.4	0.3	22.3	<2	11.3	34.3	523	92.2	9.6
ZH8	70	7.76	119.6	10.89	10.79	0.2	0.1	0.7	0.8	2.2	1.3	4.3	0.3	0.5	28.2	<2	9.7	38.7	528	65.6	5.9
ZH9	80	7.70	120.0	10.86	10.38	0.3	0.1	0.6	0.9	1.1	1.4	3.4	1.3	0.6	29.1	<2	7.4	38.4	502	61.9	7.7
ZH10	90	7.65	119.6	10.83	10.30	0.3	0.2	0.6	0.8	1.2	1.3	3.3	1.3	0.9	24.8	<2	7.5	34.5	522	49.7	9.5
ZH11	100	7.70	119.6	10.82	9.92	0.2	0.1	0.5	0.9	1.1	1.2	3.2	1.5	1.6	24.9	<2	8.3	36.3	478	52.1	10.1
ZH12	110	7.65	119.2	10.80	9.93	0.2	0.1	0.6	1.0	1	1.3	3.3	0.9	1.1	27.0	<2	8.1	37.1	527	47.3	12.6
ZH13	120	7.65	119.5	10.79	9.47	0.2	0.1	0.6	1.1	0.9	1.3	3.3	2.8	2.8	29.4	<2	7.2	42.2	516	39.6	6.6
ZH14	130	7.69	119.5	10.78	9.39	0.3	0.1	0.6	1.1	1.9	1.1	4.1	1.7	2.8	33.5	<2	7.6	45.6	513	44.9	9.1
ZH15	140	7.69	119.6	10.77	9.13	0.3	0.1	0.5	1.3	1.7	1.3	4.3	5.8	4.4	32.8	<2	7.6	50.6	515	41.5	6.3
ZH16	150	7.63	119.7	10.76	9.06	0.3	0.1	0.4	1.2	1.8	1.3	4.3	5.7	4.5	30.8	<2	3.7	44.7	544	50.7	6.6
Collection date 10 April 2012					Secchi depth = 17.0 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
HC1	1	7.92	119	16.63	9.19	<0.5	<0.5	0.6	0.4	1.6	1.8	3.8	0.4	3.7	54.9	7	15.7	74.7	644	134.5	15.5
HC2	10	7.90	121	16.44	9.74	<0.5	<0.5	0.6	0.5	1.5	1.9	3.9	3.8	0.6	56.6	3	15.2	76.2	723	131.0	14.5
HC3	20	7.88	124	16.40	9.39	<0.5	<0.5	0.7	0.4	1.6	1.9	3.9	1.4	0.6	30.0	<2	15.6	47.6	635	131.5	14.8
HC4	30	7.86	120	16.17	9.44	<0.5	<0.5	0.9	0.5	1.5	1.5	3.5	0.0	0.4	40.6	<2	11.5	52.5	670	114.0	14.9
HC5	40	7.78	120	14.03	9.55	<0.5	<0.5	1.7	0.4	0.6	2.1	3.1	0.0	0.4	35.6	<2	16.4	52.4	605	134.0	17.1
HC6	50	7.65	120	11.67	9.34	<0.5	<0.5	1.2	1.6	0.4	2.0	4.0	0.0	1.8	31.2	<2	14.3	47.3	530	100.1	12.9
HC7	60	7.60	117	10.97	9.46	<0.5	<0.5	0.7	1.2	0.8	1.2	3.2	0.0	1.8	32.2	<2	9.3	43.3	497	66.5	8.2
HC8	70	7.54	118	10.80	9.37	<0.5	<0.5	0.5	2.4	0.6	1.1	4.1	0.0	6.7	32.3	<2	8.5	47.5	476	66.1	7.9
HC9	80	7.57	120	10.71	9.11	<0.5	<0.5	0.4	2.6	0.4	1.1	4.1	0.0	8.1	28.9	<2	8.5	45.5	481	53.5	6.7
HC10	90	7.51	116	10.64	8.83	<0.5	<0.5	0.3	3.5	0.5	1.0	5.0	0.0	11.6	41.4	<2	7.6	60.6	536	62.4	7.0
HC11	100	7.41	121	10.62	9.04	<0.5	<0.5	0.2	3.4	0.6	1.1	5.1	0.0	13.1	28.9	<2	8.2	50.2	489	48.7	6.0
HC12	110	7.25	121	10.59	8.55	<0.5	<0.5	0.2	3.8	0.2	0.8	4.8	0.0	13.6	26.4	3	5.0	45.0	557	41.3	4.9
HC13	120	7.38	112	10.56	8.94	<0.5	<0.5	0.2	4.0	1	0.9	5.9	0.0	15.4	27.6	<2	6.7	49.7	587	45.0	6.7
HC14	130	7.36	117	10.54	8.66	<0.5	<0.5	0.2	4.8	0.2	1.0	6.0	0.0	16.8	29.2	<2	7.2	53.2	585	50.8	5.7
HC15	140	7.42	119	10.54	8.72	<0.5	<0.5	0.2	6.3	0.7	1.2	8.2	0.0	22.2	28.8	<2	8.1	59.1	618	48.5	5.8
HC16	150	7.35	121	10.54	7.92	<0.5	<0.5	0.2	8.2	0	1.7	9.9	0.1	27.4	28.5	<2	8.7	64.7	596	52.2	5.7
				DO sensor failed; indicative data from 14 March																	
NH_4, NO_3, DON, Urea all as N				* = PN by wet digestion method, ** = PN by combustion furnace method.																	
Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}																					
New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.																					
FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.																					

Lake Taupo biannual nutrient database									**2010-2011**							Started 27 October 1994						
Collection date 10 November 2010						Secchi depth = 11.5 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**	SO_4
	m		$\mu S\ cm^{-1}$	^oC	$g\ m^{-3}$	$g\ m^{-3}$	$g\ m^{-3}$	$g\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$g\ m^{-3}$
KD1	1	7.8	121	14.12	9.4	1.0	<0.5	0.7	0.9	2.1	4.6	7.6	0.0	0.2	49.8	<2	20.8	70.8	503	192.0	20.0	7.4
KD2	10	7.82	120	13.46	9.1	0.8	<0.5	0.7	0.6	2.4	2.0	5.0	0.0	0.1	41.9	<2	12.1	54.1	478	182.5	12.1	7.5
KD3	20	7.77	120	13.27	9.1	0.8	<0.5	0.8	0.6	1.4	2.1	4.1	0.0	0.0	42.0	<2	14.2	56.2	536	192.5	13.4	7.5
KD4	30	7.8	119	12.24	9.0	0.7	<0.5	1.1	0.5	1.5	2.2	4.2	0.2	0.0	40.8	<2	14.2	55.2	500	211.0	13.2	7.6
KD5	40	7.72	120	11.73	9.6	0.6	<0.5	1.3	0.7	1.3	2.5	4.5	0.2	0.0	41.8	<2	14.8	56.8	447	179.0	12.5	7.7
KD6	50	7.73	119	11.33	9.9	0.9	<0.5	1.6	1.0	1.0	2.6	4.6	0.0	0.0	42.0	<2	14.7	56.7	443	173.5	13.7	7.8
KD7	60	7.57	120	11.16	9.4	0.9	<0.5	2.3	1.8	1.2	2.8	5.8	0.0	0.2	30.8	<2	13.1	44.1	433	140.5	13.3	7.8
KD8	70	7.67	120	11.03	8.3	0.9	<0.5	2.5	0.8	2.2	2.8	5.8	0.0	0.2	44.8	<2	13.1	58.1	437	150.0	14.0	7.9
KD9	80	7.62	119	10.96	8.3	0.8	<0.5	2.0	0.8	2.2	2.9	5.9	0.0	0.2	40.8	<2	14.0	55.0	427	137.5	13.3	7.9
KD10	90	7.57	120	10.89	8.3	0.6	<0.5	2.2	0.8	3.2	2.7	6.7	0.0	1.6	39.4	<2	13.2	54.2	423	70.3	10.0	8.0
KD11	100	7.58	119	10.86	8.0	<0.5	<0.5	2.0	0.8	4.2	2.8	7.8	0.0	2.1	42.9	<2	10.5	55.5	436	72.5	9.6	8.2
KD12	110	7.54	120	10.83	8.0	0.5	<0.5	2.1	1.1	2.9	2.6	6.6	0.0	2.7	40.3	<2	11.7	54.7	428	73.4	9.9	8.0
KD13	120	7.6	119	10.82	7.9	0.5	<0.5	1.7	1.0	2.0	2.5	5.5	0.0	3.8	47.2	<2	11.3	62.3	440	74.9	9.6	8.6
KD14	130	7.62	120	10.80	8.1	3.3	<0.5	2.1	0.8	2.2	3.1	6.1	0.0	7.3	37.7	<2	12.8	57.8	432	83.7	10.9	8.6
KD15	140	7.57	119	10.79	7.8	0.6	<0.5	2.1	1.5	2.5	3.1	7.1	0.0	9.3	39.7	<2	13.5	62.5	430	72.0	12.0	8.1
KD16	150	7.55	120	10.80	8.1	0.8	<0.5	2.8	1.6	2.4	4.3	8.3	0.0	10.8	41.2	<2	17.0	69.0	442	87.1	14.8	8.0
													(for summations <1 use 0.5)									
Collection date 13 April 2011						Secchi depth = 17.0 m																
Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**	SO_4
	m		$\mu S\ cm^{-1}$	^oC	$g\ m^{-3}$	$g\ m^{-3}$	$g\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$mg\ m^{-3}$	$g\ m^{-3}$
RL1	1	7.84	116	17.62	9.2	0.4	0.3	0.46	2.0	0.0	0.8	2.8	0.0	0.1	44.7	<2	8.8	53.6	661	102.0	9.9	7.8
RL2	10	7.74	116	17.65	9.6	0.4	0.2	0.64	1.9	0.1	1.1	3.1	0.2	0.2	43.1	<2	10.8	54.3	684	109.5	9.5	7.8
RL3	20	7.73	116	17.62	9.9	0.4	0.3	0.65	1.5	0.5	1.7	3.7	0.0	0.1	40.1	<2	13.6	53.8	713	160.5	17.9	8.2
RL4	30	7.75	117	17.61	9.9	0.4	0.3	0.59	1.5	0.5	1.3	3.3	0.8	0.1	43.2	<2	12.1	56.2	669	139.0	14.7	8.1
RL5	40	7.63	117	12.52	10.2	0.2	0.1	0.74	3.2	0.8	1.1	5.1	0.0	1.2	29.2	<2	8.0	38.4	543	62.6	9.4	8.0
RL6	50	7.68	118	11.63	9.8	0.2	0.2	0.67	3.0	0.0	1.0	4.0	0.0	4.0	27.8	<2	7.3	39.1	587	58.7	5.0	7.9
RL7	60	7.56	118	11.29	9.7	0.3	0.2	0.46	2.6	0.4	0.9	3.9	0.0	6.1	28.0	<2	6.0	40.1	519	75.1	6.6	8.1
RL8	70	7.54	118	11.14	9.1	0.2	<0.1	0.18	2.7	0.3	1.0	4.0	0.0	8.7	25.8	<2	6.7	41.2	519	62.5	8.5	8.0
RL9	80	7.51	118	11.06	9.1	0.2	<0.1	0.16	2.9	0.1	0.8	3.8	0.0	11.8	31.4	<2	5.5	48.7	515	48.6	7.0	8.0
RL10	90	7.45	118	11.00	8.5	0.2	<0.1	0.15	3.4	0.6	0.9	4.9	0.9	14.0	26.3	<2	5.4	46.6	501	56.4	5.6	7.8
RL11	100	7.45	118	10.96	8.2	0.2	0.1	0.14	3.2	0.8	0.9	4.9	0.3	15.2	45.6	<2	5.5	66.6	517	86.8	8.0	8.3
RL12	110	7.40	118	10.92	8.1	0.2	<0.1	0.17	4.4	0.6	0.9	5.9	0.0	20.8	46.4	<2	4.1	71.3	512	41.0	4.2	7.8
RL13	120	7.43	118	10.90	7.9	0.1	<0.1	0.17	4.0	0.0	0.8	4.8	0.1	20.9	28.1	<2	4.5	53.6	512	51.4	5.8	7.9
RL14	130	7.45	118	10.88	7.5	0.2	0.1	0.16	4.5	0.5	1.0	6.0	0.8	23.4	43.4	<2	5.3	72.9	532	50.0		7.6
RL15	140	7.49	117	10.87	7.5	0.2	<0.1	0.17	5.1	0.9	1.0	7.0	0.2	25.1	33.3	<2	5.5	64.1	527	49.8	7.6	7.9
RL16	150	7.39	118	10.86	7.0	0.3	<0.1	0.27	6.1	0.0	1.4	7.5	0.3	28.7	28.3	<2	6.5	63.8	520	59.2	7.2	8.1

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 $mg\ m^{-3}$

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2009-2010** Started 27 October 1994

Collection date 9 October 2009 Secchi depth = 13.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
OT1	1	7.89	118	11.72	11.67	0.6	<0.5	0.3	4.0	<0.5	2.0	6.0	0.8	<0.5	36.0	3	13.2	50.2	553	227.0	18.4
OT2	10	7.87	121	11.25	12.13	0.7	<0.5	0.5	3.5	<0.5	2.2	5.7	0.5	<0.5	39.3	<1	14.0	54.0	538	267.0	20.2
OT3	20	7.78	120	11.24	11.79	0.6	<0.5	0.5	3.8	<0.5	2.2	6.0	0.2	<0.5	33.6	1	14.7	48.7	531	288.0	24.1
OT4	30	7.87	120	11.20	11.78	0.6	<0.5	0.5	4.0	<0.5	2.4	6.4	0.4	<0.5	31.4	1	14.4	46.4	531	264.0	21.3
OT5	40	7.86	120	10.98	11.24	0.6	<0.5	0.6	4.2	<0.5	2.0	6.2	0.4	<0.5	25.4	2	12.3	38.3	522	312.0	18.4
OT6	50	7.73	121	10.67	11.10	<0.5	<0.5	0.7	4.6	<0.5	2.0	6.6	1.0	<0.5	34.8	2	12.1	48.1	521	214.2	18.5
OT7	60	7.65	121	10.58	10.10	<0.5	<0.5	0.6	4.6	<0.5	1.7	6.3	0.9	<0.5	28.9	<1	11.2	41.2	508	161.6	17.4
OT8	70	7.70	121	10.53	10.02	<0.5	<0.5	0.5	4.6	<0.5	1.9	6.5	0.8	1.2	34.0	1	10.2	46.2	505	88.9	22.7
OT9	80	7.67	121	10.50	9.70	<0.5	<0.5	0.5	5.1	<0.5	1.7	6.8	0.8	2.7	30.5	1	9.9	43.9	514	129.3	10.3
OT10	90	7.62	122	10.49	9.72	<0.5	<0.5	0.4	4.9	<0.5	1.4	6.3	0.9	4.7	40.4	2	8.2	54.2	493	121.1	9.4
OT11	100	7.61	121	10.47	9.51	<0.5	<0.5	0.4	5.2	<0.5	1.5	6.7	0.5	7.3	44.2	1	8.1	60.1	493	117.6	8.6
OT12	110	7.62	121	10.46	9.50	<0.5	<0.5	0.2	5.7	<0.5	1.2	6.9	0.8	7.6	34.6	1	7.5	50.5	494	105.6	10.4
OT13	120	7.55	122	10.44	9.20	<0.5	<0.5	0.3	5.5	<0.5	7.7	13.2	0.6	9.3	37.1	2	8.1	55.1	517	114.7	9.1
OT14	130	7.62	122	10.43	9.18	<0.5	<0.5	0.3	5.9	<0.5	1.7	7.6	0.5	12.2	31.3	<1	9.6	53.6	504	125.3	10.1
OT15	140	7.41	122	10.41	8.82	<0.5	<0.5	0.3	6.5	<0.5	1.7	8.2	1.7	13.6	29.7	1	9.0	54.0	503	149.9	13.8
OT16	150	7.71	120	10.41	8.79	<0.5	<0.5	0.5	3.4	0.6	1.6	5.6	0.4	1.0	30.6	1	10	42.0	491	135.0	12.2

Collection date 8 April 2010 Secchi depth = 21.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
YZ1	1	7.76	115	17.36	9.48	1.0	<0.5	0.7	0.8	1.2	3.2	5.2	0.0	0.3	69.7	8	19.6	89.6	893	173.0	21.2
YZ2	10	7.78	119	17.35	10.17	<0.5	<0.5	0.6	0.8	1.2	1.6	3.6	0.0	0.2	50.8	<2	11.5	62.5	814	142.5	16.8
YZ3	20	7.83	118	17.35	9.66	0.6	<0.5	0.7	0.8	2.2	1.4	4.4	1.9	0.2	38.9	<2	12.8	53.8	683	121.5	14.2
YZ4	30	7.79	120	17.34	9.43	<0.5	<0.5	0.6	1.1	0.9	1.4	3.4	0.8	0.0	40.2	<2	12.2	53.2	710	115.0	12.6
YZ5	40	7.74	119	12.28	9.04	<0.5	<0.5	1.4	1.0	2.0	1.9	4.9	0.7	0.1	36.2	<2	16.0	53.0	593	117.0	23.8
YZ6	50	7.71	120	11.19	8.57	<0.5	<0.5	1.4	2.2	0.8	1.4	4.4	0.7	0.5	32.8	<2	11.5	45.5	545	88.1	9.4
YZ7	60	7.61	121	10.82	8.31	<0.5	<0.5	0.8	2.2	0.8	1.1	4.1	0.0	0.6	31.4	<2	7.6	39.6	496	53.5	7.7
YZ8	70	7.59	121	10.67	8.11	<0.5	<0.5	0.4	4.4	0.6	0.6	5.6	0.0	7.7	28.3	<2	4.7	40.7	525	62.2	6.4
YZ9	80	7.52	121	10.62	7.97	<0.5	<0.5	0.3	5.2	0.8	0.6	6.6	0.0	16.8	28.2	<2	4.0	49.0	491	43.3	6.3
YZ10	90	7.55	121	10.60	7.74	<0.5	<0.5	0.2	6.2	0.8	0.6	7.6	0.0	20.8	29.2	<2	3.9	53.9	496	42.1	10.1
YZ11	100	7.53	122	10.57	7.43	<0.5	<0.5	0.2	7.2	0.0	0.6	7.8	0.0	23.8	27.2	<2	3.5	54.5	491	38.2	7.8
YZ12	110	7.53	121	10.57	7.27	<0.5	<0.5	0.2	6.5	0.5	0.5	7.5	0.0	24.3	24.7	<2	2.9	51.9	481	26.7	5.9
YZ13	120	7.46	122	10.55	7.11	<0.5	<0.5	0.2	8.3	0.7	0.9	9.9	0.0	29.4	28.6	<2	6.0	64.0	505	43.6	7.3
YZ14	130	7.68	122	10.53	7.09	<0.5	<0.5	0.2	10.1	0.0	1.1	11.2	0.0	31.5	34.5	<2	5.6	71.6	519	43.2	8.1
YZ15	140	7.4	122	10.53	6.82	<0.5	<0.5	0.1	9.3	5.7	1.0	16.0	0.0	33.3	37.7	<2	5.3	76.3	517	48.2	6.6
YZ16	150	7.4	122	10.53	6.75	<0.5	<0.5	0.2	10.4	0.6	1.4	12.4	0.0	33.4	29.6	<2	6.6	69.6	514	49.5	8.5

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2008-2009** Started 27 October 1994

Collection date 14 October 2008 Secchi depth = 12.2 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
SZ1	1	7.66	119	12.59	10.29	1.1	<0.5	0.7	1.0	2.0	4.2	7.2	4.1	0.0	70.9		26.1	101.1	816	235.0	24.6
SZ2	10	7.70	121	12.09	10.29	0.7	<0.5	0.8	0.6	2.4	3.9	6.9	0.1	0.0	39.9		18.7	58.7	690	169.5	23.5
SZ3	20	7.70	121	11.93	10.50	0.8	<0.5	0.8	0.7	2.3	7.8	10.8	0.0	0.0	59.0		32.7	91.7	638	250.0	33.1
SZ4	30	7.70	120	11.85	10.46	1.0	0.6	0.7	0.7	2.3	5.6	8.6	0.0	0.0	65.0		24.2	89.2	632	195.5	31.8
SZ5	40	7.70	120	11.75	10.34	0.7	<0.5	0.9	0.3	1.7	4.6	6.6	0.0	0.0	52.0		16.2	68.2	597	162.5	15.5
SZ6	50	7.69	120	11.59	10.05	0.5	<0.5	0.9	0.4	2.6	4.5	7.5	0.5	0.0	48.5		15.6	64.6	602	139.5	29.2
SZ7	60	7.56	120	10.90	9.89	0.8	0.5	0.8	1.0	2.0	5.0	8.0	0.7	1.6	69.7		16.7	88.7	603	94.0	18.2
SZ8	70	7.52	121	10.76	9.86	0.6	<0.5	0.6	1.2	1.8	3.6	6.6	0.0	2.6	45.4		20.4	68.4	593	77.2	16.8
SZ9	80	7.45	122	10.71	9.81	0.7	<0.5	0.4	1.3	2.7	3.1	7.1	0.0	4.7	36.3		9.5	50.5	589	61.8	25.9
SZ10	90	7.49	121	10.69	9.85	0.7	<0.5	0.3	1.8	0.2	2.3	4.3	0.0	5.7	29.3		9.7	44.7	561	57.5	9.1
SZ11	100	7.23	121	10.68	10.03	0.6	<0.5	0.2	1.5	0.5	2.5	4.5	2.2	6.6	33.2		9.2	51.2	605	71.8	23.1
SZ12	110	7.32	121	10.66	10.13	<0.5	<0.5	0.3	1.5	1.5	2.2	5.2	3.5	7.4	33.1		8.0	52.0	617	46.8	10.6
SZ13	120	7.36	122	10.64	10.09	0.7	<0.5	0.2	1.2	2.8	2.5	6.5	1.6	9.5	34.9		9.9	55.9	613	57.6	28.5
SZ14	130	7.45	121	10.60	9.83	0.8	<0.5	0.2	2.6	0.4	2.1	5.1	1.6	11.7	34.7		7.5	55.5	652	56.6	27.2
SZ15	140	7.43	120	10.59	9.76	<0.5	<0.5	<0.1	2.9	3.1	2.5	8.5	1.4	17.1	37.5		8.7	64.7	686	46.6	24.1
SZ16	150	7.40	121	10.59	9.85	<0.5	<0.5	0.2	2.7	2.3	3.5	8.5	2.3	17.3	39.4		11.0	70.0	656	68.9	23.5

Collection date 15 April 2009 Secchi depth = 18.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
EU1	1	7.89	123	16.60	9.33	<0.5	<0.5	0.7	1.1	0.9	1.7	3.7	4.3	1.4	74.3	17	16.7	96.7	834	187.0	19.2
EU2	10	7.84	122	16.59	10.11	<0.5	<0.5	0.8	1.3	1.7	2.0	5.0	0.1	0.0	26.9	<1	13.1	40.1	669	116.0	16.2
EU3	20	7.83	121	16.59	10.76	<0.5	<0.5	0.9	1.2	2.8	2.0	6.0	0.3	0.0	29.7	1	17.2	47.2	691	152.0	18.4
EU4	30	7.84	123	16.58	10.83	<0.5	<0.5	0.9	0.9	3.1	1.8	5.8	0.8	0.0	38.2	2	15.8	54.8	650	143.0	19.1
EU5	40	7.8	121	12.53	10.39	<0.5	<0.5	1.0	1.4	6.6	1.5	9.5	0.7	0.1	37.3	1	13.0	51.1	627	81.9	13.2
EU6	50	7.79	121	11.56	9.58	<0.5	<0.5	0.7	2.2	3.8	1.2	7.2	0.0	2.0	20.0	<1	9.3	31.3	574	79.5	12.1
EU7	60	7.58	122	11.12	9.06	<0.5	<0.5	0.5	3.9	3.1	1.2	8.2	0.0	8.5	24.5	2	7.4	40.4	581	68.6	11.6
EU8	70	7.49	123	10.98	8.84	<0.5	<0.5	0.3	5.5	4.5	1.1	11.1	0.7	18.7	14.6	2	8.7	42.7	553	59.6	15.2
EU9	80	7.03	124	10.92	8.21	<0.5	<0.5	0.2	6.6	6.4	1.2	14.2	0.0	24.5	26.5	<1	9.3	60.3	635	51.7	11.8
EU10	90	7.03	124	10.88	8.24	12	12	0.1	7.2	2.8	1.1	11.1	0.0	27.0	16.0	1	6.7	49.7	514	46.6	9.4
EU11	100	7.16	123	10.86	8.07	<0.5	<0.5	0.1	6.3	5.7	0.9	12.9	0.0	24.7	32.3	1	5.1	62.1	554	35.9	8.8
EU12	110	7.21	124	10.84	8.12	<0.5	<0.5	0.1	7.0	4	1.0	12.0	0.2	26.3	12.5	<1	6.9	45.9	562	42.7	10.1
EU13	120	7.2	123	10.82	8.02	<0.5	<0.5	0.1	7.1	4.9	1.0	13.0	0.2	26.8	25.0	4	6.8	58.8	549	53.7	10.1
EU14	130	7.61	123	10.79	8.15	<0.5	<0.5	<0.1	7.6	8.4	1.0	17.0	0.0	27.6	<1	2	7.2	34.8	562	45.4	11.8
EU15	140	7.23	122	10.78	8.01	<0.5	<0.5	<0.1	8.1	4.9	1.1	14.1	0.0	29.0	8.0	<1	7.3	44.3	661	50.3	9.8
EU16	150	7.22	122	10.78	7.55	<0.5	<0.5	<0.1	9.0	2	1.3	12.3	1.3	30.6	21.1	1	7.1	60.1	544	42.8	12.7

NH_4, NO_3, DON, Urea all as N * = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2007-2008** Started 27 October 1994

Collection date 30 October 2007 Secchi depth = 12.8 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	^oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
ZA1	1	7.80	119	12.84	10.18	0.7	<0.5	0.6	1.3	0.7	2.1	4.1	1.5	0.7	79.8	16	20.1	102.1	617	170.0	19.2
ZA2	10	7.83	120	11.83	10.27	<0.5	<0.5	1.0	0.9	1.1	2.5	4.5	0.0	0.0	42.0	<5	18.5	60.5	553	204.0	19.8
ZA3	20	7.79	115	11.76	10.25	0.5	<0.5	1.1	1.1	0.9	2.6	4.6	0.2	0.0	42.8	<5	19.0	62.0	405	169.0	19.4
ZA4	30	7.76	119	11.70	10.07	0.7	<0.5	1.2	0.8	1.2	2.5	4.5	0.0	0.0	49.0	<5	19.1	68.1	417	173.5	19.0
ZA5	40	7.72	120	11.64	10.02	0.7	<0.5	1.1	1.0	1.0	2.6	4.6	0.0	0.0	36.0	<5	16.8	52.8	417	131.5	17.4
ZA6	50	7.61	121	11.51	9.85	0.8	<0.5	1.4	0.9	1.1	3.3	5.3	0.0	0.0	39.0	<5	18.3	57.3	434	140.0	18.1
ZA7	60	7.54	120	11.43	9.52	0.9	<0.5	1.4	1.2	0.8	2.7	4.7	0.2	0.0	32.8	<5	19.5	52.5	414	127.5	17.1
ZA8	70	7.46	123	11.32	9.77	0.8	<0.5	1.5	1.5	0.5	2.7	4.7	0.1	0.3	46.6	<5	19.1	66.1	443	130.0	19.0
ZA9	80	7.42	122	11.23	9.58	0.8	<0.5	1.1	1.9	1.1	2.1	5.1	0.4	2.6	41.0	5	15.8	59.8	422	95.8	14.4
ZA10	90	7.42	121	11.16	9.42	0.7	<0.5	0.9	2.1	0.9	2.1	5.1	0.3	4.8	42.9	<5	13.3	61.3	410	92.0	13.0
ZA11	100	7.38	122	11.07	9.49	<0.5	<0.5	0.7	2.8	0.2	1.8	4.8	0.0	8.5	36.5	<5	11.2	56.2	400	64.0	11.0
ZA12	110	7.40	122	11.04	9.16	0.7	<0.5	0.7	2.9	0.1	1.8	4.8	0.0	9.2	56.8	<5	11.6	77.6	386	68.3	11.1
ZA13	120	7.38	122	11.02	9.27	0.7	<0.5	0.6	2.8	1.2	2.1	6.1	0.0	10.0	46.0	<5	12.7	68.7	359	105.3	12.5
ZA14	130	7.44	120	11.00	9.01	0.6	<0.5	0.6	2.6	1.4	1.9	5.9	0.0	10.4	35.6	<5	10.9	56.9	348	61.8	10.5
ZA15	140	7.44	121	10.98	9.11	0.6	<0.5	0.6	3.0	0.0	1.7	4.7	0.0	10.8	39.2	<5	10.3	60.3	351	64.1	11.2
ZA16	150	7.42	121	10.96	8.91	<0.5	<0.5	0.6	3.5	1.5	1.8	6.8	0.0	13.3	38.7	<5	10.8	62.8	305	63.1	10.6

Collection date 17 April 2008 Secchi depth = 17.8 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	^oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
KA1	1	7.79	122	17.88	9.49	<0.5	<0.5	0.4	0.8	0.2	0.7	1.7	2.8	0.4	64.8	14	13.3	81.3	656	138.5	8.4
KA2	10	7.87	121	17.87	8.97	<0.5	<0.5	0.8	0.5	0.5	0.7	1.7	1.1	0.3	48.6	<5	12.0	62.0	576	112.5	8.3
KA3	20	7.83	124	17.85	8.46	<0.5	<0.5	0.8	0.9	0.1	0.8	1.8	0.4	0.3	38.3	<5	13.7	52.7	528	142.0	9.4
KA4	30	7.71	122	15.58	8.52	<0.5	<0.5	0.5	1.0	0.0	0.9	1.9	3.1	0.1	27.8	<5	10.9	41.9	526	110.0	9.1
KA5	40	7.58	121	12.38	8.72	<0.5	<0.5	0.6	1.7	1.3	0.8	3.8	1.8	0.8	36.4	<5	14.6	53.6	459	107.0	6.7
KA6	50	7.38	121	11.72	8.48	<0.5	<0.5	0.5	1.9	2.1	0.6	4.6	0.2	3.4	29.4	<5	10.2	43.2	417	75.1	6.1
KA7	60	7.36	122	11.48	8.20	<0.5	<0.5	0.4	3.5	0.5	0.8	4.8	0.6	5.3	32.1	<5	9.6	47.6	353	84.9	6.7
KA8	70	7.31	122	11.34	7.84	<0.5	<0.5	0.3	3.5	1.5	0.7	5.7	0.9	10.8	42.3	<5	10.7	64.7	481	85.4	6.8
KA9	80	7.25	122	11.27	7.71	<0.5	<0.5	0.2	4.2	0.8	1.2	6.2	0.4	14.7	82.9	<5	9.5	107.5	347	97.5	4.9
KA10	90	7.19	122	11.20	7.57	<0.5	<0.5	0.1	5.1	0.0	0.7	5.8	0.3	19.8	43.9	<5	10.2	74.2	370	107.0	5.4
KA11	100	7.18	122	11.17	7.45	<0.5	<0.5	0.1	4.6		0.6	5.2	0.6	21.2	30.2	<5	8.6	60.6	412	59.8	4.0
KA12	110	7.12	123	11.14	7.29	<0.5	<0.5	<0.1	5.0	1.0	0.6	6.6	0.8	28.2	26.0	<5	4.5	59.5	346	44.6	3.3
KA13	120	7.07	123	11.15	7.29	0.6	<0.5	<0.1	7.4	0.0	0.8	8.2	0.1	30.2	29.7	<5	7.9	67.9	373	85.8	5.8
KA14	130	7.28	123	11.12	7.18	<0.5	<0.5	<0.1	5.6	1.4	0.8	7.8	1.1	29.5	26.4	<5	9.0	66.0	395	89.1	4.4
KA15	140	7.12	123	11.11	7.13	<0.5	<0.5	<0.1	8.4	1.6	1.5	11.5	1.1	36.8	27.1	<5	8.5	73.5	393	72.6	4.1
KA16	150	7.11	123	11.11	6.72	<0.5	<0.5	<0.1	8.3	0.7	1.5	10.5	0.4	36.4	27.2	<5	7.2	71.2	379	98.8	4.1

NH_4, NO_3, DON, Urea all as N * = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2006-2007** Started 27 October 1994

Collection date 1 November 2006 Secchi depth = 14.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
HW1	1	7.79	118	12.43	10.2	0.5	<0.5	0.5	1.2	0.0	1.7	2.9	0.1	1.0	75.9		13.6	90.6	413	168.0	15.4
HW2	10	7.77	119	12.27	10.1	0.8	<0.5	0.6	1.0	0.0	1.9	2.9	0.0	0.1	61.9		13.8	75.8	419	187.0	13.8
HW3	20	7.77	120	12.25	10.1	0.7	<0.5	0.7	0.9	1.1	2.3	4.3	0.0	0.1	32.9		17.8	50.8	373	209.5	17.4
HW4	30	7.81	119	12.20	10.1	0.8	<0.5	0.6	1.0	0.0	2.7	3.7	0.3	0.0	38.7		22.3	61.3	456	215.5	18.1
HW5	40	7.78	119	12.10	10.1	0.9	<0.5	0.6	1.1	0.9	2.2	4.2	0.0	0.1	30.9		17.9	48.9	368	227.5	19.8
HW6	50	7.74	119	11.96	10.0	0.6	<0.5	0.7	1.2	0.0	1.9	3.1	0.0	0.2	29.8		14.0	44.0	468	169.0	13.9
HW7	60	7.67	120	11.34	9.7	0.7	<0.5	1.1	1.5	0.0	1.8	3.3	0.6	0.1	31.3		13.9	45.9	411	123.5	13.5
HW8	70	7.64	119	11.17	9.5	<0.5	<0.5	1.3	1.2	1.8	2.0	5.0	0.5	0.1	29.4		14.5	44.5	378	98.0	12.3
HW9	80	7.57	119	11.06	9.4	0.7	<0.5	1.3	1.3	0.7	2.2	4.2	2.5	1.8	27.7		14.1	46.1	330	91.5	11.2
HW10	90	7.56	119	10.99	9.3	<0.5	<0.5	1.3	1.2	0.8	2.2	4.2	2.7	2.3	52.0		14.4	71.4	352	122.5	15.3
HW11	100	7.56	119	10.94	9.3	0.5	<0.5	1.1	1.4	0.0	2.3	3.7	2.9	3.1	43.0		13.4	62.4	378	105.5	13.2
HW12	110	7.50	121	10.91	9.2	<0.5	<0.5	0.9	1.8	0.0	2.3	4.1	3.7	4.6	73.7		14.3	96.3	382	106.5	12.8
HW13	120	7.50	119	10.88	9.1	<0.5	<0.5	0.7	1.8	2.2	2.2	6.2	3.7	5.8	52.5		11.5	73.5	421	87.5	11.5
HW14	130	7.57	120	10.85	9.0	<0.5	<0.5	0.9	1.8	2.2	2.2	6.2	3.3	4.4	38.3		12.0	58.0	354	84.5	11.6
HW15	140	7.50	119	10.84	8.9	0.6	<0.5	0.8	1.4	0.6	2.3	4.3	3.0	4.5	43.5		13.4	64.4	428	110.5	12.9
HW16	150	7.49	120	10.84	8.7	<0.5	<0.5	0.7	2.0	3.0	2.4	7.4	4.7	7.6	52.7		12.8	77.8	368	98.0	10.7

Collection date 3 April 2007 Secchi depth = 19.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
HW17	1	7.94	119	18.04	9.4	<0.5	<0.5	0.7	1.6	2.4	1.4	5.4	4.7	0.9	62.4		14.9	82.9	567	122.0	18.4
HW18	10	8.09	119	18.03	9.5	<0.5	<0.5	0.8	1.1	3.9	1.8	6.8	0.0	0.1	59.9		14.9	74.9	522	317.5	19.2
HW19	20	8.09	119	17.94	9.4	<0.5	<0.5	0.8	1.2	2.8	1.6	5.6	0.0	0.2	65.8		14.8	80.8	498	177.5	16.8
HW20	30	7.95	119	16.72	9.3	<0.5	<0.5	1.2	1.0	4.0	2.0	7.0	0.0	0.1	63.9		17.5	81.5	481	133.0	19.6
HW21	40	7.73	119	13.50	8.9	<0.5	<0.5	1.2	1.8	2.2	1.6	5.6	0.0	0.3	55.7		12.3	68.3	444	76.4	12.1
HW22	50	7.62	120	12.33	8.9	<0.5	<0.5	0.8	1.5	4.5	1.3	7.3	0.1	0.8	53.2		9.0	63.1	419	68.1	10.1
HW23	60	7.54	119	11.65	8.8	<0.5	<0.5	0.7	1.2	3.8	1.5	6.5	0.1	3.4	51.5		7.7	62.7	393	49.9	6.3
HW24	70	7.48	120	11.28	8.8	<0.5	<0.5	0.9	2.0	2.0	1.3	5.3	0.0	9.7	70.2		6.4	86.3	434	68.3	8.6
HW25	80	7.43	115	11.22	8.5	<0.5	<0.5	0.6	2.0	3.0	1.2	6.2	0.0	14.6	52.4		6.4	73.4	436	58.0	8.3
HW26	90	7.39	121	11.11	8.5	<0.5	<0.5	0.3	1.7	3.3	1.0	6.0	0.1	16.3	54.7		7.1	78.2	460	62.7	8.4
HW27	100	7.35	121	11.10	8.2	<0.5	<0.5	0.3	2.5	1.5	1.1	5.1	0.0	19.4	50.5		7.0	76.9	469	48.9	6.7
HW28	110	7.31	121	11.04	8.2	<0.5	<0.5	0.2	2.7	2.3	0.9	5.9	1.5	20.9	47.1		5.9	75.4	437	40.4	7.5
HW29	120	7.32	120	11.04	8.0	<0.5	<0.5	0.2	3.0	2.0	0.9	5.9	0.0	23.8	57.7		4.9	86.4	452	48.5	7.8
HW30	130	7.73	121	11.01	8.1	<0.5	<0.5	0.2	2.7	3.3	0.9	6.9	0.0	24.8	51.2		3.8	79.8	389	42.7	6.7
HW31	140	7.30	118	11.00	7.7	<0.5	<0.5	0.2	3.7	2.3	1.3	7.3	0.0	24.6	47.4		3.8	75.8	413	43.2	6.4
HW32	150	7.25	121	10.99	7.4	<0.5	<0.5	0.2	4.5	3.5	1.6	9.6	0.0	30.5	50.5		6.1	87.1	439	51.7	9.5

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2005-2006** Started 27 October 1994

Collection date 25 October 2005 Secchi depth = 15.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
QD1	1	7.81	119	13.40	10.1	<0.5	<0.5	0.4	1.0	3.0	1.3	5.3	0.6	0.3	51.1	4	8.5	60.5	613	132.5	11.0
QD2	10	7.88	119	12.88	10.0	0.5	<0.5	0.5	0.7	2.3	1.9	4.9	0.1	0.0	52.9	3	12.8	65.8	623	169.0	13.5
QD3	20	7.74	119	12.17	10.1	0.6	<0.5	0.7	0.6	2.4	2.7	5.7	0.4	0.2	43.4	2	17.0	61.0	625	216.5	20.0
QD4	30	7.77	118	11.65	9.9	0.7	<0.5	0.6	0.6	5.4	2.6	8.6	0.7	0.0	57.3	2	17.3	75.3	566	212.0	16.0
QD5	40	7.68	119	11.49	9.8	<0.5	<0.5	0.9	0.6	3.4	3.1	7.1	0.0	0.2	49.8	2	22.2	72.2	581	229.5	20.5
QD6	50	7.59	119	11.29	9.5	<0.5	<0.5	1.4	0.8	1.2	2.2	4.2	1.4	0.1	35.5	2	15.9	52.9	599	172.5	14.0
QD7	60	7.46	120	11.18	9.2	0.7	<0.5	0.7	1.7	2.3	1.6	5.6	1.7	9.6	41.7	2	9.8	62.8	503	103.5	6.5
QD8	70	7.37	120	11.07	9.0	0.5	<0.5	0.8	1.9	2.1	1.5	5.5	1.6	12.8	56.6	2	9.2	80.2	482	101.5	6.0
QD9	80	7.35	120	11.01	8.8	0.6	<0.5	0.6	2.5	1.5	1.4	5.4	0.6	15.3	30.1	13	9.0	55.0	521	86.5	6.0
QD10	90	7.36	121	10.97	8.8	0.7	<0.5	0.4	2.8	1.2	1.4	5.4	0.3	17.1	47.6	2	7.3	72.3	478	62.5	4.0
QD11	100	7.29	121	10.97	8.6	<0.5	<0.5	0.5	2.8	1.2	1.4	5.4	0.4	17.4	39.2	2	7.8	64.8	476	77.5	4.5
QD12	110	7.34	120	10.94	8.5	<0.5	<0.5	0.5	3.0	1.0	1.3	5.3	1.5	18.7	48.8	2	7.4	76.4	462	92.5	3.0
QD13	120	7.29	121	10.94	8.5	<0.5	<0.5	0.5	2.8	2.2	1.2	6.2	0.8	20.4	42.8	2	6.2	70.2	549		5.0
QD14	130	7.32	120	10.93	8.4	<0.5	<0.5	0.5	2.7	1.3	1.3	5.3	0.1	20.3	35.6	3	5.9	61.9	504	69.5	6.0
QD15	140	7.34	121	10.93	8.4	<0.5	<0.5	0.6	3.0	2.0	1.4	6.4	1.4	20.9	34.7	1	7.8	64.8	352	77.5	6.5
QD16	150	7.26	120	10.92	8.2	<0.5	<0.5	0.5	3.8	1.2	1.5	6.5	0.9	23.5	29.6	3	7.1	61.1	533	66.0	6.0

Collection date 12 April 2006 Secchi depth = 15.8 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
ZD1	1	7.9	119	16.72	9.6	<0.5	<0.5	1.2	1.1	0.9	1.9	3.9	0.0	0.2	50.8	2	19.2	70.2		213.5	19.0
ZD2	10	7.9	118	16.72	9.2	<0.5	<0.5	1.3	0.8	1.2	1.6	3.6	0.0	0.0	38.0	2	16.6	54.6		196.0	13.5
ZD3	20	7.9	116	16.72	9.0	0.5	<0.5	1.1	0.7	0.3	1.3	2.3	0.0	0.0	42.0	<1	15.65	57.7		235.0	15.5
ZD4	30	7.88	120	16.71	9.4	<0.5	<0.5	1.2	0.6	1.4	1.6	3.6	0.1	0.0	50.9	<1	15.45	66.5		172.0	13.5
ZD5	40	7.9	116	16.64	9.2	0.8	0.7	1.3	0.5	1.5	1.55	3.6	0.0	0.0	41.0	2	15.45	56.5		224.5	13.0
ZD6	50	7.6	119	12.11	8.7	<0.5	<0.5	1.0	0.7	2.3	1.2	4.2	0.0	0.1	33.9	8	11.4	45.4		133.0	8.5
ZD7	60	7.43	121	11.52	8.5	<0.5	<0.5	1.0	0.7	2.3	1.05	4.1	0.0	0.5	44.5	2	9.15	54.2		171.5	8.0
ZD8	70	7.49	121	11.31	8.3	<0.5	<0.5	0.9	0.7	2.3	1.15	4.2	0.0	0.7	37.3	6	9.55	47.6		130.5	9.0
ZD9	80	7.9	120	11.18	8.3	<0.5	<0.5	1.1	0.5	2.5	1.4	4.4	0.3	0.0	50.7	5	16.1	67.1		182.0	12.5
ZD10	90	7.31	122	11.11	8.1	<0.5	<0.5	0.2	3.0	1	0.45	4.5	0.0	23.0	28.0	2	4.1	55.1		62.5	6.0
ZD11	100	7.31	122	11.08	8.1	<0.5	<0.5	0.3	3.2	0.8	0.5	4.5	0.1	22.8	24.1	<1	4.95	52.0		68.5	6.5
ZD12	110	7.91	119	11.05	8.0	0.7	0.5	1.1	3.2	1.8	1.5	6.5	0.1	22.2	25.7	3	16.5	64.5		196.0	15.0
ZD13	120	7.42	122	11.03	7.9	<0.5	<0.5	0.3	3.1	1.9	0.5	5.5	0.0	21.6	27.4	<1	5.2	54.2		86.5	7.0
ZD14	130	7.5	121	11.02	7.7	<0.5	<0.5	0.3	3.0	2	0.55	5.6	0.0	19.9	32.1	2	5.45	57.5		69.5	6.5
ZD15	140	7.3	119	11.02	7.3	<0.5	<0.5	0.2	3.4	1.6	0.55	5.6	0.0	23.1	31.9	2	6.5	61.5		87.0	7.5
ZD16	150	7.24	122	11.02	7.2	<0.5	<0.5	0.3	2.9	1.1	0.55	4.6	0.2	21.0	28.8	5	5.85	55.9		77.5	7.0

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2004-2005** Started 27 October 1994

Collection date 21 October 2004 Secchi depth = 15.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
VZ1	1	7.88	122	11.75	10.4	0.6	0.5	0.6	1.3	2.7	1.6	5.6	0.1	0.4	39.5	19	9.7	49.7	500	110.0	8
VZ2	10	7.82	120	11.61	10.2	0.8	0.6	0.8	1.1	2.9	2.0	6.0	0.2	0.1	35.7	24	12.8	48.8	447	157.0	8.5
VZ3	20	7.87	120	11.59	10.1	0.9	0.7	0.8	1.0	3.0	1.9	5.9	0.0	0.0	33.0	16	11.3	44.3	440	153.0	8.5
VZ4	30	7.91	123	11.59	10.2	1.5	1.0	0.7	1.0	2.0	1.9	4.9	0.0	0.0	34.0	15	11.3	45.3	490	157.5	8
VZ5	40	7.82	117	11.58	10.1	1.1	0.6	0.7	1.4	3.6	2.0	7.0	0.2	0.1	33.7	7	11.2	45.2	445	155.0	10
VZ6	50	7.83	120	11.58	9.9	1.1	0.7	0.9	1.0	4.0	2.1	7.1	0.0	0.1	33.9	9	13.2	47.2	494	197.5	15
VZ7	60	7.79	119	11.15	9.9	1.1	0.7	1.0	1.6	2.4	2.3	6.3	0.5	0.4	34.1	11	26.0	61.0	585	167.0	16
VZ8	70	7.66	118	10.79	9.7	0.7	0.5	1.0	1.9	1.1	1.9	4.9	2.4	0.8	40.8	21	11.5	55.5	468	114.0	11.5
VZ9	80	7.63	118	10.74	9.6	0.6	<0.5	0.9	2.0	1.0	1.7	4.7	2.8	1.3	47.9	16	8.9	60.9	440	103.0	9.5
VZ10	90	7.61	119	10.72	9.5	0.6	<0.5	0.7	2.0	2.0	1.6	5.6	3.9	2.2	28.9	9	9.1	44.1	633	100.5	10
VZ11	100	7.53	118	10.70	9.4	0.7	0.5	0.7	2.3	1.7	1.5	5.5	5.1	3.6	34.3	7	9.0	52.0	570	93.0	10
VZ12	110	7.56	119	10.68	9.4	0.5	<0.5	0.7	2.0	5.0	1.6	8.6	5.3	2.8	28.9	9	9.2	46.2	514	101.5	9
VZ13	120	7.49	119	10.66	9.3	0.5	<0.5	0.7	2.1	1.9	1.5	5.5	5.3	3.9	35.8	6	8.5	53.5	391	91.5	11
VZ14	130	7.48	118	10.65	9.3	<0.5	<0.5	0.6	2.5	1.5	1.6	5.6	5.8	5.3	34.9	5	8.6	54.6	366	73.5	8.5
VZ15	140	7.58	118	10.61	9.2	<0.5	<0.5	0.6	2.9	1.1	1.6	5.6	5.9	7.3	33.8	13	9.1	56.1	491	93.5	10.5
VZ16	150	7.58	119	10.56	9.1	<0.5	<0.5	0.6	2.4	1.6	1.5	5.5	4.5	3.3	35.2	21	8.7	51.7	464	78.0	9

Collection date 14 April 2005 Secchi depth = 17.2 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
GC1	1	7.85	119	17.92	9.1	0.4	0.4	0.7	0.8	1.2	1.9	3.9	1.2	0.2	64.6	7	15.1	81.1	690	176.0	19.0
GC2	10	7.86	118	17.96	9.0	0.3	0.4	0.9	0.8	2.2	1.9	4.9	0.0	0.0	46	3	14.1	60.1	580	199.5	19.0
GC3	20	7.9	119	17.95	9.0	0.3	0.3	0.9	0.8	2.2	2.0	5.0	0.0	0.1	55.9	1	14.5	70.5	580	179.0	17.0
GC4	30	7.82	118	15.13	8.4	0.3	0.3	0.9	0.8	2.2	1.8	4.8	0.0	0.3	49.7	2	12.8	62.8	570	176.5	17.0
GC5	40	7.58	121	12.92	8.7	0.2	0.2	0.8	2.3	0.7	1.2	4.2	0.3	0.6	31.1	2	8.9	40.9	510	109.5	14.0
GC6	50	7.51	120	12.00	8.3	0.1	0.1	0.6	3.1	0.9	1.0	5.0	0.0	6.4	39.6	3	6.8	52.8	480	84.0	9.0
GC7	60	7.47	121	11.33	8.2	0.1	0.1	0.5	3.6	1.4	1.1	6.1	0.0	8.3	40.7	2	8.2	57.2	510	78.5	7.5
GC8	70	7.48	120	10.99	8.2	0.1	0.1	0.3	4.2	0.8	0.9	5.9	0.0	15.7	38.3	2	6.5	60.5	490	96.0	7.0
GC9	80	7.39	121	10.88	8.2	0.2	0.2	0.3	3.8	0.2	0.8	4.8	0.1	15.7	36.2	1	4.3	56.3	480	72.5	7.5
GC10	90	7.21	121	10.82	8.3	0.0	0.1	0.1	5.6	1.4	0.9	7.9	0.2	23.8	38	2	5.6	67.6	480	64.0	7.0
GC11	100	7.31	121	10.78	8.0	0.0	0.1	0.1	5.7	1.3	0.8	7.8	0.2	23.6	53.2	2	5.0	82.0	460	78.5	7.0
GC12	110	7.32	121	10.76	7.8	0.1	0.1	0.1	5.7	1.3	0.8	7.8	0.0	25.9	47.1	2	5.6	78.6	470	43.5	6.0
GC13	120	7.33	121	10.76	7.7	0.1	0.1	<0.1	6.4	1.6	0.8	8.8	0.3	26.8	37.9	1	4.9	69.9	450	56.0	6.5
GC14	130	7.33	121	10.74	7.7	0.1	0.1	<0.1	6.1	0	0.8	6.8	0.3	26.7	57	1	4.4	88.4	470	43.5	5.5
GC15	140	7.34	121	10.74	7.6	0.1	0.1	<0.1	6.6	0.4	0.9	7.9	0.2	28.8	39	2	5.8	73.8	490	54.5	6.0
GC16	150	7.36	121	10.72	7.5	0.3	0.1	0.1	7.8	0.2	1.1	9.1	0.0	32.1	51.9	1	6.9	90.9	490	46.0	7.5

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2003-2004** Started 27 October 1994

Collection date 19 November 2003 Secchi depth = 16.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
EU1	1	7.84	119	13.96	9.9	<0.5	<0.5	0.8	1.7	2.3	2.3	6.3	8.0	0.8	42.2	1	14.8	65.8	476	90.5	10.5
EU2	10	7.84	120	13.79	9.9	<0.5	<0.5	0.9	1.6	1.4	2.5	5.5	0.3	0.3	52.4	1	14.4	67.4	461	147.5	15.0
EU3	20	7.83	120	13.78	9.8	<0.5	<0.5	0.7	1.8	1.2	3.4	6.4	0.4	0.1	46.5	1	19.4	66.4	466	151.0	20.5
EU4	30	7.84	120	13.70	9.5	<0.5	<0.5	0.9	1.8	2.2	3.8	7.8	0.4	0.3	42.3	1	26.3	69.3	450	133.0	18.5
EU5	40	7.69	120	12.30	9.3	<0.5	<0.5	1.5	2.6	1.4	3.3	7.3	0.7	0.2	35.1	1	20.6	56.6	437	133.0	17.0
EU6	50	7.63	121	11.35	9.0	<0.5	<0.5	1.2	2.8	1.2	1.9	5.9	0.4	0.5	37.1	1	11.9	49.9	470	92.5	11.0
EU7	60	7.58	121	11.28	8.9	<0.5	<0.5	0.7	3.3	0.7	1.5	5.5	1.0	3.2	27.8	2	9.6	41.6	503	69.5	8.0
EU8	70	7.59	121	11.23	8.7	<0.5	<0.5	0.6	3.5	0.5	1.1	5.1	3.4	4.8	25.8	1	6.2	40.2	465	47.0	<6
EU9	80	7.6	121	11.19	8.6	<0.5	<0.5	0.5	3.6	0.4	1.1	5.1	0.6	5.9	29.5	2	5.1	41.1	430	65.0	<6
EU10	90	7.57	121	11.16	8.6	<0.5	<0.5	0.5	3.9	0.1	1.2	5.2	1.0	7.0	27	3	6.4	41.4	391	39.5	<6
EU11	100	7.59	121	11.15	8.6	<0.5	0.7	0.4	4.1	0.9	1.2	6.2	0.8	7.8	33.4	2	4.0	46.0	405	46.5	<6
EU12	110	7.6	121	11.12	8.4	<0.5	<0.5	0.4	4.1	0.9	1.1	6.1	1.1	11.8	29.1	3	3.4	45.4	428	45.5	<6
EU13	120	7.57	120	11.11	8.4	<0.5	<0.5	0.4	4.6	0.4	1.2	6.2	0.7	13.6	32.7	2	3.0	50.0	439	37.0	<6
EU14	130	7.53	121	11.09	8.3	<0.5	<0.5	0.3	5.1	0.4	1.2	6.7	0.8	16.1	32.7	3	3.7	53.3	408	33.0	<6
EU15	140	7.57	121	11.09	8.2	<0.5	<0.5	0.3	5.3	0.7	1.2	7.2	0.4	18.1	32.5	3	5.1	56.1	440	54.5	<6
EU16	150	7.54	120	11.09	8.0	0.5	<0.5	0.5	5.6	1.4	1.5	8.5	2.4	20.7	32.9	4	6.4	62.4	481	44.0	<6

Collection date 31 March 2004 Secchi depth = 16.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
MB1	1	7.86	118	16.49	9.2	<0.5	<0.5	0.7	0.9	4.1	1.4	6.4	1	0	69	-	9.7	79.7	622	91.0	-
MB2	10	7.83	118	16.29	9.1	<0.5	<0.5	1.2	0.5	3.5	2.0	6.0	0	0	47	-	12.4	59.4	548	141.5	17.0
MB3	20	7.83	118	16.23	9.0	<0.5	<0.5	1.1	0.6	3.4	2.1	6.1	1	0.2	47.8	-	14.8	63.8	561	140.5	17.0
MB4	30	7.83	118	16.19	9.0	<0.5	<0.5	1.1	0.8	3.2	1.9	5.9	1	0.2	50.8	-	13.5	65.5	749	131.5	15.5
MB5	40	7.66	118	16.15	8.9	<0.5	<0.5	0.9	1.5	1.5	1.9	4.9	1	2.8	71.2	-	11.6	86.6	560	114.5	14.0
MB6	50	7.46	120	12.51	8.2	<0.5	<0.5	0.5	3.3	2.7	1.5	7.5	1	12.1	58.9	-	7.2	79.2	467	109.0	7.5
MB7	60	7.41	121	11.59	8.0	<0.5	<0.5	0.3	4.7	2.3	1.0	8.0	1	18.0	41	-	4.2	64.2	394	54.5	7.0
MB8	70	7.36	121	11.40	8.0	<0.5	<0.5	0.2	4.5	1.5	0.8	6.8	1	19.1	36.9	-	3.7	60.7	404	45.0	<4
MB9	80	7.42	121	11.34	8.0	<0.5	<0.5	0.2	5.0	1.0	0.8	6.8	1	20.2	31.8	-	5.3	58.3	464	41.0	<4
MB10	90	7.36	121	11.30	7.9	<0.5	<0.5	0.1	5.2	1.8	0.7	7.7	3	22.1	35.9	-	3.9	64.9	453	52.0	<4
MB11	100	7.31	122	11.27	7.8	<0.5	<0.5	0.1	5.6	2.4	0.8	8.8	2	23.9	38.1	-	3.0	67.0	477	36.5	<4
MB12	110	7.29	122	11.26	7.7	<0.5	<0.5	<0.1	5.8	2.2	1.0	9.0	1	25.0	30	-	6.2	62.2	392	36.5	5.5
MB13	120	7.31	121	11.24	7.6	<0.5	<0.5	0.1	5.9	3.1	0.8	9.8	1	25.0	59	-	3.6	88.6	373	53.5	<4
MB14	130	7.3	121	11.22	7.5	<0.5	<0.5	<0.1	6.3	2.7	0.9	9.9	0	27.0	35	-	3.3	65.3	393	61.0	<4
MB15	140	7.3	121	11.21	7.4	<0.5	<0.5	<0.1	6.6	3.4	0.8	10.8	0	27.8	46.2	-	3.3	77.3	356	35.0	<4
MB16	150	7.31	120	11.21	7.1	<0.5	<0.5	0.1	7.2	2.8	1.0	11.0	0	30.1	48.9	-	4.0	83.0	394	34.0	<4

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient **2002-2003** Started 27 October 1994

Collection date 13 November 2002 Secchi depth = 18.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
NZ1	1	7.87	122	12.58	10.2	0.6	<0.5	0.6	1.3	1.7	2.2	5.2	0.8	0.6	65.6	2	15.3	82.3	620	160.0	12.5
NZ2	10	7.86	120	12.58	10.3	0.5	<0.5	0.7	1.2	1.8	2.1	5.1	0.7	0.0	49.3	1	13.7	63.7	573	180.5	13.5
NZ3	20	7.93	120	12.49	10.2	1.0	<0.5	0.7	1.1	1.9	2.2	5.2	0.5	0.1	61.4	1	15.8	77.8	536	157.5	12.0
NZ4	30	7.85	121	12.38	10.2	<0.5	<0.5	0.8	0.9	3.1	2.6	6.6	0.7	0.5	74.8	2	17.7	93.7	657	242.0	14.0
NZ5	40	7.81	119	12.16	10.1	<0.5	<0.5	0.7	1.2	1.8	1.9	4.9	0.6	0.7	58.7	1	12.9	72.9	506	164.5	8.0
NZ6	50	7.83	120	12.00	10.1	<0.5	<0.5	0.7	1.6	1.4	1.7	4.7	1.6	0.0	55.4	1	11.5	68.5	505	170.0	9.5
NZ7	60	7.78	119	11.81	10.0	<0.5	<0.5	0.6	1.5	1.5	1.5	4.5	1.2	0.0	64.8	2	9.5	75.5	531	108.5	6.5
NZ8	70	7.72	120	11.51	9.9	<0.5	<0.5	0.6	2.8	1.2	1.3	5.3	3.4	2.2	42.4	7	7.1	55.1	514	53.5	5.0
NZ9	80	7.67	120	11.32	9.7	<0.5	<0.5	0.4	2.7	1.3	1.1	5.1	3.3	0.9	38.8	2	5.9	48.9	578	61.0	4.5
NZ10	90	7.77	121	11.13	9.6	<0.5	<0.5	0.4	2.8	1.2	1.0	5.0	3.7	0.4	44.9	4	6.6	55.6	487	41.0	<2
NZ11	100	7.53	122	11.08	9.4	<0.5	<0.5	0.2	3.0	2.0	0.8	5.8	4.2	3.7	65.1	5	6.1	79.1	525	31.0	<2
NZ12	110	7.64	121	11.05	9.4	<0.5	<0.5	0.1	3.3	1.7	0.7	5.7	3.4	5.4	57.2	4	4.4	70.4	472	38.0	<2
NZ13	120	7.55	122	11.01	9.3	<0.5	<0.5	0.2	3.6	0.4	1.0	5.0	3.0	7.0	51.0	6	5.9	66.9	473	64.5	4.0
NZ14	130	7.32	123	10.99	9.2	<0.5	<0.5	0.1	3.6	0.4	1.0	5.0	2.9	7.5	45.6	5	6.7	62.7	555	70.5	3.5
NZ15	140	7.47	121	10.97	9.1	0.5	<0.5	0.1	3.7	1.3	0.9	5.9	2.5	10.5	60.0	16	6.7	79.7	460	54.5	3.0
NZ16	150	7.46	121	10.96	9.0	<0.5	<0.5	0.2	4.3	1.7	1.0	7.0	0.5	12.9	58.6	4	6.4	78.4	461	52.5	3.0

Collection date 3 April 2003 Secchi depth = 13.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		mS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
UJ1	1	8.01	119	19.20	8.8	3.0	0.5	0.7	0.8	3.2	1.8	5.8	5	0.4	75.6	5	18.8	99.8	546	219.0	19.5
UJ2	10	8.07	146	18.71	8.8	0.7	1.0	1.4	0.9	4.1	2.5	7.5	<1	0.6	45.4	1	24.0	70.0	511	304.5	29.0
UJ3	20	8.15	120	18.60	8.6	1.0	0.7	1.3	0.6	3.4	2.3	6.3	<1	0.6	40.4	1	23.7	64.7	520	270.0	31.5
UJ4	30	7.93	119	16.93	8.3	<0.5	<0.5	1.5	0.8	3.2	1.8	5.8	<1	0.3	39.7	1	20.4	60.4	503	181.0	39.0
UJ5	40	7.66	118	13.31	8.0	<0.5	<0.5	1.3	1.7	3.3	1.7	6.7	<1	0.8	39.2	1	12.2	52.2	443	115.0	54.0
UJ6	50	7.61	122	12.39	7.9	<0.5	1.0	0.7	2.9	2.1	1.3	6.3	<1	4.8	35.2	3	8.6	48.6	410	92.5	5.5
UJ7	60	7.57	138	11.80	7.7	<0.5	<0.5	0.5	3.9	2.1	1.1	7.1	<1	10.7	32.3	1	5.9	48.9	366	86.5	4.5
UJ8	70	7.42	121	11.50	7.6	<0.5	<0.5	0.2	4.4	1.6	0.9	6.9	<1	16.3	27.7	1	6.1	50.1	404	109.5	4.0
UJ9	80	7.39	121	11.32	7.5	<0.5	<0.5	0.1	4.5	1.5	1.0	7.0	<1	19.3	41.7	1	6.2	67.2	365	37.0	4.0
UJ10	90	7.32	121	11.20	7.3	<0.5	<0.5	0.1	4.7	1.3	0.8	6.8	<1	21.9	24.1	2	4.5	50.5	360	40.0	<4
UJ11	100	7.29	121	11.19	7.3	<0.5	<0.5	<0.1	5.3	2.7	0.9	8.9	<1	23.9	27.1	2	4.6	55.6	387	92.5	<4
UJ12	110	7.26	120	11.12	7.2	<0.5	<0.5	<0.1	5.5	0.5	0.7	6.7	<1	25.2	30.8	1	2.9	58.9	366	28.5	<4
UJ13	120	7.33	122	11.11	7.0	<0.5	<0.5	<0.1	6.6	0.4	0.7	7.7	<1	28.8	36.2	5	2.5	67.5	409	40.0	<4
UJ14	130	7.27	123	11.09	6.9	<0.5	<0.5	<0.1	7.7	0.3	0.9	8.9	<1	30.9	29.1	3	3.2	63.2	382	15.5	<4
UJ15	140	7.28	122	11.10	6.8	<0.5	<0.5	<0.1	7.6	0.4	0.8	8.8	<1	30.4	47.6	4	4.3	82.3	384	47.5	<4
UJ16	150	7.29	122	11.09	6.5	<0.5	<0.5	<0.1	9.0	5.0	1.6	15.6	<1	36.4	30.6	2	6.5	73.5	371	38.5	<4

NH_4, NO_3, DON, Urea all as N

* = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given as a better indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N below nominal detection limit.

Lake Taupo biannual nutrient database **2001-2002** Started 27 October 1994

Collection date 12 November 2001 Secchi depth = 15.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
XH1	1	7.85	122	14.23	9.5	0.5	<0.5	0.6	0.9	1.1	1.55	3.6	<1	<0.5	29	2	6	35	500	146.5	12.0
XH2	10	7.86	122	14.16	9.8	0.5	<0.5	0.7	1.1	0.9	4.3	6.3	<1	<0.5	32	2	16.5	49	520	212.0	31.3
XH3	20	7.82	119	13.37	9.4	<0.5	<0.5	1.0	1.1	<0.5	3.5	4.6	<1	<0.5	28	1	20	48	510	340.5	26.8
XH4	30	7.6	116	12.85	9.4	0.6	0.7	1.3	1.6	<0.5	3.1	4.7	<1	1.0	29	1	14.5	45	480	264.5	24.7
XH5	40	7.44	122	11.87	8.9	<0.5	<0.5	1.3	2.2	<0.5	2.8	5.0	1	2.5	25.5	2	11.5	41	470	200.5	21.7
XH6	50	7.46	121	11.57	9.0	<0.5	<0.5	0.9	2.6	<0.5	1.75	4.4	<1	7.2	26.8	2	6	40	470	136.5	12.6
XH7	60	7.41	121	11.24	8.7	1.3	1.2	0.7	2.6	<0.5	1.4	4.0	<1	8.0	24	2	<2	32	440	104.5	9.1
XH8	70	7.4	122	11.13	8.8	<0.5	<0.5	0.5	2.9	<0.5	1.15	4.1	<1	12.3	21.7	2	<2	34	450	142.0	7.2
XH9	80	7.38	122	11.03	8.6	<0.5	<0.5	0.4	3.2	<0.5	1.15	4.4	<1	13.6	29.4	4	<2	43	440	103.0	8.1
XH10	90	7.4	119	11.01	8.8	<0.5	<0.5	0.4	3.2	<0.5	1.05	4.3	<1	15.1	21.9	2	<2	37	420	79.0	6.2
XH11	100	7.35	120	10.99	8.6	<0.5	<0.5	0.3	3.8	<0.5	1.05	4.9	<1	17.8	25.2	2	4	47	460	98.0	6.6
XH12	110	7.36	122	10.97	8.6	<0.5	<0.5	0.3	4.0	<0.5	1.1	5.1	<1	19.5	24.5	2	<2	44	490	116.5	5.8
XH13	120	7.35	126	10.95	8.4	<0.5	<0.5	0.3	4.5	<0.5	1.3	5.8	<1	22.0	22	2	<2	44	490	93.5	5.6
XH14	130	7.38	127	10.94	8.4	<0.5	<0.5	0.3	4.4	<0.5	1.1	5.5	<1	21.1	21.9	2	<2	43	420	113.5	5.5
XH15	140	7.34	126	10.94	8.2	<0.5	<0.5	0.3	5.2	<0.5	1.3	6.5	<1	24.7	25.3	2	<2	50	440	93.5	7.3
XH16	150	7.38	127	10.94	8.1	1.3	0.6	0.3	5.3	<0.5	1.3	6.6	<1	25.2	26.8	3	<2	52	480	83.5	7.7

Collection date 4 April 2002 Secchi depth = 19.0 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
EJ1	1	7.91	119	17.45	8.8	<0.5	<0.5	0.72	0.5	0.5	1	2.0	1.1	0.3	44.6		7.85	53.9	0.5	187.0	10.0
EJ2	10	7.94	118	17.38	8.9	<0.5	<0.5	0.96	0.6	1.4	1.4	3.4	0.2	0.1	44.7		9.4	54.4	0.6	164.5	10.5
EJ3	20	7.88	119	17.18	8.8	<0.5	<0.5	1.02	0.5	1.5	1.35	3.4	0.3	0.0	38.7		9.45	48.5	0.8	154.5	11.0
EJ4	30	7.85	119	16.83	8.7	<0.5	<0.5	0.95	0.7	2.3	1.45	4.5	0.4	0.1	40.5		8.4	49.4	0.5	136.5	10.5
EJ5	40	7.65	121	12.9	8.3	<0.5	<0.5	0.89	1.4	0.6	1.2	3.2	0.4	0.8	32.8		7.95	42.0	0.4	100.0	8.0
EJ6	50	7.66	120	12.09	8.2	<0.5	<0.5	0.85	2.1	0.9	1.3	4.3	0.4	3.5	35.1		7.8	46.8	0.4	114.0	9.0
EJ7	60	7.60	123	11.51	8.1	<0.5	<0.5	0.50	3.9	2.1	1	7.0	0.9	12.3	30.8		5.7	49.7	0.4	75.0	6.0
EJ8	70	7.42	123	11.3	8.0	<0.5	<0.5	0.26	4.5	0.5	0.95	6.0	0.0	20.9	30.1		5.65	56.7	0.5	49.5	4.0
EJ9	80	7.46	121	11.24	7.9	<0.5	<0.5	0.24	4.6	0.4	1.1	6.1	0.2	24.8	29		7.55	61.6	0.3	50.0	5.0
EJ10	90	7.38	121	11.19	7.8	<0.5	<0.5	0.19	5.3	<0.5	0.75	6.1	0.3	28.1	23.6		4.45	56.5	0.4	48.0	4.0
EJ11	100	7.33	121	11.17	7.8	<0.5	<0.5	0.11	5.4	0.6	0.8	6.8	0.1	28.6	30.3		5.05	64.1	0.3	76.0	5.5
EJ12	110	7.37	122	11.14	7.7	<0.5	<0.5	0.10	6.0	<0.5	0.8	6.8	0.5	31.7	23.8		6.15	62.2	0.6	67.5	7.5
EJ13	120	7.36	122	11.14	7.7	<0.5	<0.5	0.10	6.3	<0.5	0.6	6.9	0.2	32.2	24.6		3.25	60.3	0.3	46.5	4.0
EJ14	130	7.32	122	11.13	7.6	<0.5	<0.5	0.09	6.5	<0.5	0.45	7.0	0.1	32.2	26.7		0.8	59.8	0.5	48.0	5.5
EJ15	140	7.34	122	11.13	7.1	<0.5	<0.5	0.07	7.0	<0.5	0.7	7.7	1.1	34.0	29.9		4.9	69.9	0.4	44.0	4.0
EJ16	150	7.44	122	11.13	7.0	<0.5	<0.5	0.09	8.7	<0.5	0.9	9.6	0.8	36.3	24.9		4.45	66.5	0.4	75.5	4.0

NH_4, NO_3, DON, Urea all as N * = PN by wet digestion method, ** = PN by combustion furnace method.

Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

New Analytical instrument (Flow Injection Analysis) from January 2002, gives greatly improved resolution at low levels.

FIA instrument results are given for Autumn as an indication of likely absolute low levels of DRP, NO_3-N, and NH_4-N.

Lake Taupo biannual nutrient database **2000-2001** Started 27 October 1994

Collection date 26 October 2000 Secchi depth = 11 m

Code	Depth	pH	EC @25°C	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
FX1	1	7.87	120	12.5	9.1	0.5	<0.5	0.4	<1	3	2	5.0	1	<1	25	4	9	35	0.5	104.5	4.0
FX2	10	7.85	120	11.5	8.7	0.8	0.5	1.1	1	4	3	8.0	<1	<1	33	2	23	56	0.5	196.0	12.0
FX3	20	7.79	120	11.4	8.7	<0.5	<0.5	1.3	<1	2	4	6.0	<1	<1	41	2	29	70	0.5	237.0	19.0
FX4	30	7.74	120	11.3	8.7	1.1	0.5	1.3	<1	2	3	5.0	<1	<1	36	1	24	60	0.5	183.0	11.0
FX5	40	7.69	119	11.3	9.1	0.9	0.5	1.5	<1	2	3	5.0	1	<1	38	2	18	57	0.5	90.5	7.0
FX6	50	7.63	120	11.3	9.1	0.8	<0.5	1.4	1	2	2	5.0	2	<1	64	2	14	80	0.4	79.5	6.0
FX7	60	7.54	120	11.3	8.7	0.9	<0.5	1.2	1	1	2	4.0	<1	<1	45	2	14	59	0.4	58.0	5.0
FX8	70	7.52	120	11.2	8.7	<0.5	<0.5	1.2	1	1	2	4.0	4	1	38	4	14	57	0.5	61.5	5.0
FX9	80	7.52	120	11.2	8.7	0.9	<0.5	1.1	2	2	2.5	6.5	5	2	44	2	13	64	0.5	44.5	<4
FX10	90	7.59	120	11.2	8.7	0.9	<0.5	1.1	2	2	2	6.0	6	3	37	2	14	60	0.5	58.5	5.5
FX11	100	7.47	120	11.1	8.7	<0.5	<0.5	1.4	1	1	3	5.0	3	4	39	4	16	62	0.4	48.5	6.0
FX12	110	7.41	121	11.1	8.7	0.9	<0.5	1.2	2	2	3	7.0	3	4	38	3	15	60	0.4	29.5	<4
FX13	120	7.40	121	11.0	8.2	0.5	<0.5	0.8	2	2	2	6.0	6	7	38	5	8	59	0.4	104.0	5.5
FX14	130	7.42	121	11.0	8.5	0.6	<0.5	0.2	2	2	2	6.0	6	7	41	4	11	65	0.4	71.0	6.5
FX15	140	7.36	121	11.0	8.6	0.8	<0.5	0.6	4	1	3	8.0	5	11	40	3	11	67	0.4	65.5	5.0
FX16	150	7.32	121	11.0	8.5	0.6	<0.5	1.4	4	2	4	10.0	8	13	47	9	18	86	0.4	110.5	8.0

Collection date 8 April 2001 Secchi depth = 13.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
NZ1	1	7.94	120	17.0	8.3	<0.5	<0.5	1.0	<1	2	2	4.0	2	1	40	7	20.0	63.0	0.6	201.0	15.5
NZ2	10	7.97	120	16.9	8.3	<0.5	<0.5	1.4	<1	1	2	3.0	<1	<1	29	1	19.0	48.0	0.6	189.0	13.0
NZ3	20	7.99	120	16.8	8.4	<0.5	<0.5	1.5	<1	1	2	3.0	<1	<1	36	1	19.0	55.0	0.6	208.5	14.5
NZ4	30	7.96	124	15.8	8.0	<0.5	<0.5	1.2	<1	2	2	4.0	1	<1	42	1	16.0	59.0	0.6	156.0	10.5
NZ5	40	7.76	120	13.1	7.8	<0.5	<0.5	1.2	<1	1	1.5	2.5	1	1	22	2	12.0	36.0	0.5	145.0	8.5
NZ6	50	7.69	119	12.4	7.5	<0.5	<0.5	1.0	2	0	1	3.0	1	2	22	2	10.0	35.0	0.5	100.0	5.5
NZ7	60	7.60	120	11.8	7.2	<0.5	<0.5	0.8	1	1	1	3.0	<1	9	16	2	7.0	32.0	0.5	82.0	<2
NZ8	70	7.57	120	11.7	7.1	<0.5	<0.5	0.4	3	0	<1	3.0	<1	19	25	2	5.5	49.5	0.4	80.5	<2
NZ9	80	7.44	121	11.5	6.9	<0.5	<0.5	0.3	3	0	<1	3.0	2	24	15	3	5.0	46.0	0.6	70.0	<2
NZ10	90	7.39	121	11.5	6.9	<0.5	<0.5	0.2	3	1	<1	4.0	2	26	14	4	4.0	46.0	0.5	57.5	<2
NZ11	100	7.38	122	11.4	6.8	<0.5	<0.5	0.2	4	0	<1	4.0	2	29	16	1	4.0	51.0	0.5	47.5	<2
NZ12	110	7.39	122	11.4	6.8	<0.5	<0.5	0.1	4	1	<1	4.0	2	31	18	4	3.5	54.5	0.5	42.5	<2
NZ13	120	7.41	121	11.3	6.7	<0.5	<0.5	0.1	5	0	<1	5.0	1	33	16	4	5.0	55.0	0.4	40.0	<2
NZ14	130	7.42	122	11.3	6.6	<0.5	<0.5	0.1	5	0	<1	5.0	1	33	20	4	5.0	59.0	0.5	42.5	<2
NZ15	140	7.34	123	11.3	6.4	<0.5	<0.5	0.1	6	1	<1	7.0	2	38	12	5	4.5	56.5	0.5	55.0	<2
NZ16	146	7.30	123	11.3	6.3	<0.5	<0.5	0.1	7	2	1	10.0	2	43	22	5	6.5	73.5	0.5	70.5	<2

NH_4, NO_3, DON, Urea all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = PN by wet digestion method, ** = PN by combustion furnace method.

Lake Taupo biannual nutrient database **1999-2000** Started 27 October 1994

Collection date 18 October 1999 Secchi depth = 14.9 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a++	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
PX1	1	7.71	119	12.8	8.9	0.5	<0.5	0.14	0.5	3	3.7	7.2	<1	<1	41	16	19.4	60.4	441	105.7	8.8
PX2	10	7.74	117	12.7	8.9	<0.5	<0.5	0.39	0.5	4	3.2	7.7	<1	<1	36	4	19.9	55.9	411	160.8	12.9
PX3	20	7.73	122	12.4	8.9	0.6	<0.5	0.80	1	2	5.5	8.5	<1	<1	34	1	37.8	71.8	437	254.7	37.3
PX4	30	7.76	120	11.6	8.9	<0.5	1.9	1.06	1	2	3.9	6.9	<1	<1	36	<1	26.7	62.7	413	198.3	24.2
PX5	40	7.57	117	11.4	8.8	<0.5	<0.5	3.14	2	2	2.4	6.4	5	<1	44	22	14.6	63.6	392	117.2	9.7
PX6	50	7.48	119	11.3	8.6	<0.5	<0.5	2.90	2.5	2	1.7	6.2	8	2	33	5	9.1	52.1	417	87.0	6.6
PX7	60	7.49	118	11.1	8.6	0.5	<0.5	1.45	3	1	1.5	5.5	7	9	36	5	12.6	64.6	449	95.0	11.1
PX8	70	7.41	117	11.1	8.6	<0.5	<0.5	0.65	3.5	1	1.5	6.0	4	15	27	9	5.6	51.6	421	49.9	4.9
PX9	80	7.39	117	11.0	8.5	<0.5	<0.5	0.75	3.5	2	1.4	6.9	4	17	31	7	5.7	57.7	398	42.7	5.7
PX10	90	7.36	118	11.0	8.6	<0.5	<0.5	0.54	4	2	1.3	7.3	3	17	29	2	5.8	54.8	393	51.2	5.7
PX11	100	7.36	118	11.0	8.6	<0.5	<0.5	0.63	4	1	1.6	6.6	4	18	30	2	7.3	59.3	492	56.1	5.8
PX12	110	7.35	118	11.0	8.6	0.5	<0.5	0.65	4	2	1.8	7.8	5	18	46	10	20.1	89.1	547	129.5	21.4
PX13	120	7.33	119	11.0	8.3	0.8	0.7	0.71	4	2	1.7	7.7	6	19	47	20	45.3	117.3	530	222.3	44.3
PX14	130	7.33	119	11.0	7.9	0.6	0.5	0.59	4	2	1.7	7.7	5	19	40	12	15.3	79.3	461	112.9	19.7
PX15	140	7.32	123	11.0	7.5	0.6	<0.5	0.90	4	1	2.3	7.3	4	19	53	12	16.5	92.5	514	84.5	9.7
PX16	150	7.29	119	11.0	7.5	1.6	<0.5	0.67	4.5	2	2.1	8.6	3	19	34	7	9.6	65.6	783	63.9	6.8

Collection date 12 April 2000 Secchi depth = 15 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH_4-N	NO_3-N	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	oC	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
YX1	1	7.86	118	17.4	9.2	0.6		1.3	<1	4	2	6.0	6	2	72	8	16	96.0	542	255.0	31.0
YX2	10	7.88	118	17.3	9.2	1.1		1.3	<1	3	2	5.0	3	1	57	1	21	82.0	472	198.5	16.5
YX3	20	7.88	118	17.2	9.2	1.0		1.4	<1	3	2	5.0	1	<1	59	3	15.5	75.5	599	166.5	12.0
YX4	30	7.79	118	16.7	9.0	1.1		1.3	<1	3	2	5.0	1	<1	59	2	17	77.0	608	154.0	17.5
YX5	40	7.29	119	12.6	8.3	0.6		1.1	2	2	1	5.0	2	2	57	6	9.5	70.5	396	72.0	6.0
YX6	50	7.17	120	11.7	8.0	1.0		0.8	3	2	1	6.0	2	7	42	7	8.5	59.5	403	94.5	7.5
YX7	60	7.18	119	11.4	8.0	0.5		1.0	4	1	<1	5.0	1	16	44	1	4	65.0	402	48.5	<4
YX8	70	7.1	120	11.3	8.0	0.6		<0.1	6	1	<1	7.0	6	29	35	1	6.5	76.5	418	41.0	4.0
YX9	80	7.14	120	11.2	7.9	1.0		<0.1	6	1	<1	7.0	2	32	46	1	12	92.0	451	105.5	8.0
YX10	90	7.11	120	11.2	7.9	0.7		<0.1	7	<1	<1	7.0	1	35	34	2	11	81.0	428	67.5	5.0
YX11	100	7.12	125	11.2	7.7	0.7		<0.1	7	2	<1	9.0	2	37	41	1	8.5	88.5	417	68.5	<4
YX12	110	7.12	120	11.2	7.7	0.9		<0.1	7	2	<1	9.0	2	37	50	3	11	100.0	439	65.0	5.5
YX13	120	7.06	120	11.1	7.7	0.6		<0.1	8	1	<1	9.0	3	39	47	1	6.5	95.5	431	40.5	0.0
YX14	130	7.12	120	11.1	7.5	1.2		<0.1	8	1	<1	9.0	2	40	47	3	9	98.0	453	57.0	5.0
YX15	140	7.08	120	11.1	7.5	1.2		<0.1	9	<1	<1	9.0	2	42	45	2	8	97.0	415	50.5	<4
YX16	146	7.04	120	11.1	7.2	1.7		0.1	10	3	1	14.0	4	43	42	2	10	99.0	429	92.0	4.0

NH_4, NO_3, DON, Urea all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = PN by wet digestion method, ** = PN by combustion furnace method. ++ = from calibrated chlorophyll fluorescence profiler (filters damaged)

Lake Taupo biannual nutrient database **1998-1999** Started 27 October 1994

Collection date 1 November 1998 Secchi depth = 13.5 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
DM1	1	7.91	118	13.6	10.4	0.8	<0.5	0.8	0.7	1.5	2.0	4.2	3.4	<0.5	35	10.8	49.2		133.5	12.0
DM2	10	7.87	117	13.2	10.7	0.8	<0.5	1.0	0.6	1.3	2.6	4.5	2.4	<0.5	36	15.2	53.6		180.5	15.0
DM3	20	7.82	118	12.7	10.7	0.5	<0.5	1.4	0.6	1.4	2.9	4.9	1.9	1.1	37	18.0	58.0		215.0	23.3
DM4	30	7.80	118	12.4	10.6	<0.5	<0.5	1.1	0.5	1.3	2.3	4.1	1.9	<0.5	34	14.1	50.0		128.0	13.5
DM5	40	7.75	118	12.4	10.4	<0.5	<0.5	0.6	0.6	1.2	1.7	3.5	2.5	<0.5	34	9.2	45.7		118.0	10.4
DM6	50	7.70	118	12.2	10.2	<0.5	<0.5	0.6	0.6	1.2	1.7	3.5	2.6	0.6	31	8.1	42.3		114.5	7.9
DM7	60	7.46	119	11.7	10.0	<0.5	<0.5	0.4	2.1	1.0	1.4	4.5	1.6	9.5	32	6.0	49.1		73.0	6.0
DM8	70	7.30	120	11.2	9.6	<0.5	<0.5	0.3	3.3	0.9	1.0	5.2	2.7	16.0	32	3.8	54.5		56.0	2.7
DM9	80	7.15	121	11.1	9.1	<0.5	<0.5	0.2	3.9	0.8	0.9	5.6	1.5	20.5	29	5.0	56.0		64.5	2.7
DM10	90	7.07	122	11.1	8.8	<0.5	<0.5	0.2	4.9	0.5	0.9	6.3	2.6	24.8	32	5.0	64.4		45.0	2.9
DM11	100	7.16	121	11.0	8.5	<0.5	<0.5	0.2	5.0	0.5	0.9	6.4	3.3	26.2	34	3.6	67.1		42.5	2.0
DM12	110	7.16	122	11.0	8.3	<0.5	<0.5	0.1	6.2	0.4	0.8	7.4	2.0	29.2	30	4.0	65.2		54.0	2.9
DM13	120	7.11	122	11.0	8.0	<0.5	<0.5	0.1	6.4	0.3	0.8	7.5	2.2	30.6	29	3.3	65.1		63.0	1.8
DM14	130	7.08	122	11.0	7.8	<0.5	<0.5	0.1	7.0	0.2	0.8	8.0	2.2	31.4	28	3.1	64.7		48.5	2.0
DM15	140	7.07	123	10.9	7.6	<0.5	<0.5	0.1	7.9	0.0	0.9	8.8	2.0	33.8	32	5.0	72.8		54.0	2.0
DM16	150	7.10	123	10.9	7.6	2.5	<0.5	0.2	8.2	0.4	3.7	12.3	2.7	35.4	34	12.8	84.9		140.5	10.5

Collection date 14 April 1999 Secchi depth = 13 m

Code	Depth	pH	EC @25oC	Temp	DO	SS	VSS	Chlor_a	DRP	DOP	PP	TP	NH4-N	NO3-N	DON	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	°C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
II1	1		119	18.3	8.9	<0.5	<0.5	1.2	0.6		1.8	2.4	3	<0.5	43	19.0	65.0	0.6	221.4	19.5
II2	10		118	18.3	8.8	<0.5	<0.5	1.2	0.5		1.8	2.3	1	<0.5	40	19.3	60.3	0.5	216.3	17.6
II3	20		118	18.3	8.8	<0.5	<0.5	1.2	0.5		1.7	2.2	1	2	41	19.0	63.0	0.5	132.3	8.9
II4	30		118	18.1	8.7	<0.5	<0.5	1.2	1.1		1.4	2.5	1	3	34	14.0	52.0	0.6	136.8	9.7
II5	40		118	12.9	8.4	<0.5	<0.5	0.7	2.3		0.9	3.2	1	6	31	8.9	46.9	0.7	91.2	6.5
II6	50		119	11.9	8.1	<0.5	<0.5	0.4	3.1		0.7	3.8	1	14	28	7.9	50.9	0.5	63.1	4.8
II7	60		121	11.6	8.0	<0.5	<0.5	0.3	4.3		0.7	5.0	1	19	33	7.3	60.3	0.6	42.3	5.0
II8	70		121	11.4	8.0	<0.5	<0.5	0.2	5.5		0.8	6.3	1	23	27	8.6	59.6	0.4	48.4	7.0
II9	80		122	11.3	7.8	<0.5	<0.5	0.1	5.9		0.8	6.7	2	28	29	8.3	67.3	0.5	51.5	6.1
II10	90		123	11.2	7.6	<0.5	<0.5	0.1	6.1		0.6	6.7	1	30	31	6.4	68.4	0.5	62.1	4.2
II11	100		122	11.2	7.4	<0.5	<0.5	0.1	6.1		0.5	6.6	2	27	28	6.1	63.1	0.6	33.1	1.5
II12	110		120	11.2	7.2	<0.5	<0.5	0.1	6.6		0.5	7.1	2	28	27	6.1	63.1	0.5	35.7	2.9
II13	120		122	11.2	7.1	<0.5	<0.5	0.1	6.4		0.5	6.9	2	24	26	5.2	57.2	0.6	34.1	2.2
II14	130		122	11.1	6.8	<0.5	<0.5	<0.1	7.5		0.5	8.0	2	28	31	6.3	67.3	0.6	46.9	5.5
II15	140		122	11.1	6.3	<0.5	<0.5	0.1	8.8		0.9	9.7	2	33	31	6.4	72.4	0.5	63.4	3.0
II16	150		116	11.1	5.9	<0.5	<0.5	<0.1	8.6		0.9	9.5	4	28	60	7.7	99.7	0.9	51.1	1.1

NH_4, NO_3, DON, Urea all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = PN by wet digestion method, ** = PN by combustion furnace method.

Lake Taupo biannual nutrient database **1997-1998** Started 27 October 1994

Collection Date 30 October 1997 Secchi depth = 12.5 m

ID	Depth	pH	EC @25°C	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	SO_4
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}
TT1	1	7.70	116.9	12.2	10.7	0.61	0.30	1.28	1.0	1.3	1.5	3.8	2.1	2.9	36	1.1	14.3	55.3	0.71	168.3	17.2	
TT2	10	7.71	117.8	12.0	10.2	0.54	0.29	1.49	0.7	1.9	1.9	4.5	1.3	7.3	32	1.1	18.7	59.7	0.82	160.7	18.8	
TT3	20	7.65	118.1	11.5	10.2	0.59	0.32	1.58	0.8	1.6	1.7	4.0	1.6	0.7	36	1.1	14.0	52.0	0.60	133.0	16.5	
TT4	30	7.64	118.2	11.5	10.0	0.52	0.25	1.19	0.4	1.5	1.9	3.8	1.5	1.3	31	0.9	15.8	49.8	0.60	146.9	16.0	
TT5	40	7.62	117.1	11.4	10.0	0.55	0.28	1.31	0.6	1.5	1.6	3.7	1.7	0.3	33	1.0	14.1	49.1	0.62	126.3	13.4	
TT6	50	7.63	116.9	11.1	9.9	0.37	0.20	1.10	0.4	1.5	1.4	3.2	2.2	0.3	32	0.8	12.3	46.3	0.51	112.1	12.1	
TT7	60	7.54	117.7	11.1	9.8	0.21	0.10	0.93	1.4	0.7	1.5	3.5	3.3	0.7	34	1.6	14.3	52.3	0.74	80.6	9.0	
TT8	70	7.45	117.8	10.8	9.8	0.41	0.12	0.79	1.1	1.1	1.1	3.2	8.2	1.3	31	1.5	7.9	47.9	0.65	58.4	4.8	
TT9	80	7.36	118.3	10.7	9.9	0.31	0.04	0.54	1.5	1.1	0.8	3.3	6.1	2.3	31	0.6	6.0	45.0	0.57	57.6	9.0	
TT10	90	7.48	117.8	10.6	9.3	0.44	0.27	0.74	1.1	1.2	1.2	3.5	7.9	4.8	33	0.7	12.4	58.4	0.52	69.3	12.2	
TT11	100	7.29	118.5	10.5	9.2	0.25	0.11	0.40	2.0	1.2	0.8	4.1	8.4	5.0	30	1.1	5.7	48.7	0.63	64.5	8.3	
TT12	110	6.97	119.3	10.4	9.0	0.21	0.06	0.29	2.3	1.0	1.1	4.3	10.8	5.6	29	2.5	6.7	51.7	0.59	53.0	5.5	
TT13	120	7.00	119.1	10.5	9.0	0.29	0.26	0.27	2.0	1.2	1.0	4.1	9.9	6.7	31	6.1	5.8	53.8	0.58	37.5	5.3	
TT14	130	6.80	119.8	10.5	8.8	0.28	0.26	0.28	2.2	1.2	1.3	4.7	10.6	7.1	32	1.5	8.2	58.2	0.56	49.0	6.4	
TT15	140	7.23	117.9	10.4	8.8	0.25	0.20	0.26	2.7	1.4	1.1	5.2	10.8	9.5	37	2.0	10.9	67.9	0.63	66.0	8.5	
TT16	150	7.29	118.9	10.4	8.8	0.50	0.27	0.32	2.5	1.1	1.0	4.5	11.6	9.6	37	3.0	7.6	65.6	0.54	69.0	9.2	

Collection Date:- 7 April 1998 Secchi depth = 13.5 m

ID	Depth	pH	EC @25°C	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	SO_4
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}
YE1	1	8.00	118	17.7	9.1	0.40	0.10	0.67	0.8	1.4	1.3	3.5	2.9	4.6	53	3.7	9.9	70.4	0.83	156.5	14.4	7.7
YE2	10	7.99	119	17.7	9.1	0.49	0.12	1.04	0.9	1.4	1.8	4.1	1.9	2.5	52	4.6	13.7	70.1	0.78	179.5	16.0	8.1
YE3	20	8.00	119	17.7	9.1	0.32	0.32	1.07	0.7	1.5	1.7	3.9	2.4	1.5	48	3.7	12.6	64.5	0.71	162.5	15.2	8.5
YE4	30	7.99	120	17.5	9.1	0.30	0.20	1.06	0.7	1.7	1.6	4.0	2.0	1.2	48	3.7	12.7	63.9	0.78	138.5	14.5	8.0
YE5	40	7.60	120	13.7	9.3	0.13	0.13	1.18	1.2	1.0	1.2	3.4	2.0	3.1	39	4.2	8.2	52.3	0.69	112.5	8.2	7.7
YE6	50	7.50	120	11.5	9.3	0.34	0.00	0.75	2.4	0.9	0.9	4.2	2.5	4.5	52	3.2	6.5	65.5	0.65	88.0	6.7	7.8
YE7	60	7.38	120	11.0	9.3	0.11	0.00	0.49	3.0	0.7	0.8	4.5	1.5	11.7	32	3.2	5.3	50.5	0.72	74.5	5.8	7.7
YE8	70	7.32	121	10.8	9.2	0.20	0.00	0.33	3.1	0.9	0.6	4.6	1.0	17.7	38	3.7	4.0	60.7	0.78	57.5	4.1	7.9
YE9	80	7.23	120	10.6	9.1	0.24	0.24	0.24	3.5	0.6	0.8	4.9	1.4	23.1	43	6.9	5.7	73.2	0.69	49.5	4.5	7.9
YE10	90	7.27	121	10.6	9.1	0.31	0.21	0.17	4.4	0.6	0.7	5.7	1.3	24.1	41	6.5	5.6	72.0	0.68	47.5	4.9	7.9
YE11	100	7.29	121	10.6	9.0	0.32	0.11	0.16	4.5	0.7	0.8	6.0	1.0	24.5	39	3.7	6.8	71.3	0.57	58.0	7.4	7.8
YE12	110	7.29	121	10.5	8.9	0.35	0.35	0.12	4.8	0.7	0.5	6.0	1.3	25.1	40	5.5	6.5	72.9	0.63	52.5	2.6	7.8
YE13	120	7.35	121	10.5	8.9	0.24	0.08	0.37	3.4	0.6	1.2	5.2	1.0	18.9	35	4.6	4.1	59.0	0.75	63.5	3.8	7.7
YE14	130	7.24	122	10.5	8.8	0.32	0.16	0.11	5.7	0.6	0.7	7.0	1.0	27.0	39	6.0	3.5	70.5	0.63	52.0	3.9	7.9
YE15	140	7.21	122	10.5	8.6	0.45	0.05	0.15	6.4	0.6	1.0	8.0	4.2	29.1	65	10.6	6.7	105.0	0.74	60.5	5.9	7.8
YE16	150	7.49	121	10.5	8.4	0.80	0.15	0.62	3.3	1.1	1.6	6.0	2.5	13.0	62	9.7	14.2	91.7	0.70	135.5	13.6	7.9

NH_4, NO_3, DON, Urea all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = PN by wet digestion method, ** = PN by combustion furnace method.

Lake Taupo biannual nutrient database **1996-1997** Started 27 October 1994

Collection Date 24 October 1996 Secchi depth = 12.6 m

ID	Depth	pH	EC @25°C	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	SO4
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}
IG1	1			12.4	10.3	0.45	0.34	0.27	0.6	2.1	1.7	4.4	3.0	0.5	59.3	1.4	13.9	76.7	0.86	171	14.5	7.82
IG2	10			12.3	10.3	0.72	0.42	0.47	0.7	2.3	2.2	5.2	2.4	0.4	64.5	1.0	14.5	81.8	0.88	201	16.8	7.90
IG3	20			12.3	10.2	0.67	0.40	0.45	0.8	2.8	2.9	6.5	2.6	0.4	75.8	0.6	18.7	97.5	0.91	232	19.8	7.87
IG4	30			12.3	9.9	0.85	0.49	0.64	0.6	2.3	3.1	6.0	3.3	0.5	73.6	0.4	20.6	98.0	0.95	198	15.7	7.86
IG5	40			11.9	9.9	0.71	0.46	0.56	0.5	1.8	2.5	4.8	2.6	1.2	64.8	0.3	14.6	83.2	0.80	183	12.8	7.84
IG6	50			11.6	9.8	0.62	0.34	0.45	1.1	3.1	2.1	6.3	2.9	0.6	71.2	0.9	13.2	87.9	0.92	157	14.9	7.95
IG7	60			11.1	9.7	0.77	0.32	0.70	0.9	1.8	2.3	5.0	4.4	13.2	175.4	3.5	14.3	207.3	1.29	151	14.1	10.67
IG8	70			10.6	9.4	0.65	0.28	0.54	0.8	1.5	1.9	4.2	2.9	0.8	59.3	1.5	9.2	72.2	0.78	116	10.2	7.85
IG9	80			10.5	9.3	0.51	0.27	0.55	0.9	2.5	1.8	5.2	3.0	3.0	76.1	1.3	9.8	91.9	0.95	103	10.8	7.80
IG10	90			10.4	9.3	0.49	0.23	0.50	0.6	1.8	1.8	4.2	2.1	1.0	52.3	1.4	10.9	66.3	0.73	95	11.0	7.69
IG11	100			10.4	9.2	0.50	0.21	0.51	0.5	1.5	1.8	3.8	1.8	3.6	53.9	4.5	9.6	68.9	1.04	106	12.8	7.85
IG12	110			10.4	9.2	0.43	0.23	0.49	0.4	1.3	2.0	3.7	2.5	5.2	54.0	6.0	9.3	71.0	0.80	94	11.5	7.85
IG13	120			10.4	9.0	0.47	0.21	0.47	0.8	1.4	1.8	4.0	3.7	9.6	61.9	6.9	8.0	83.2	0.78	78	9.7	7.97
IG14	130			10.3	8.9	0.44	0.18	0.38	1.1	1.5	2.3	4.9	4.5	9.7	52.4	4.6	12.0	78.6	1.00	83	8.7	7.99
IG15	140			10.3	8.9	0.49	0.22	0.51	1.5	1.6	2.5	5.6	4.3	12.9	57.8	5.0	10.4	85.4	0.99	80	8.9	8.14
IG16	150			10.3	8.9	1.13	0.26	0.57	1.2	2.3	3.5	7.0	5.1	13.6	65.9	4.8	14.5	99.1	0.91	121	13.4	8.15

Collection Date:- 2 April 1997 Secchi depth = 16.0 m

ID	Depth	pH	EC @25°C	Temp	DO	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	SO4
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}
NA1	1	8.02	118.4	17.3	9.4	0.30	0.30	0.63	0.9	2.2	1.5	4.6	4.0	0.6	67.4	4.9	18.1	90.1	0.82	186.5	17.3	7.80
NA2	10	8.01	118.3	17.3	9.2	0.20	0.10	0.69	0.9	1.3	1.6	3.8	1.7	0.3	51.0	3.3	14.4	67.4	0.77	190.0	17.1	7.86
NA3	20	8.03	118.2	17.2	8.9	0.40	0.30	0.63	0.6	1.2	1.6	3.4	1.8	0.3	51.8	2.2	17.6	71.5	0.75	192.0	19.1	7.85
NA4	30	7.98	118.4	17.2	8.8	0.40	0.40	0.52	0.7	1.0	1.5	3.2	2.5	0.6	47.5	2.7	15.2	65.8	0.56	207.5	20.3	7.90
NA5	40	7.52	118.5	14.2	8.8	0.20	0.20	0.72	0.8	1.8	1.4	4.0	2.7	0.3	53.2	4.1	13.3	69.5	0.69	158.0	15.2	7.91
NA6	50	7.32	119.3	11.3	8.6	0.00	0.00	0.39	1.5	1.4	1.0	3.9	11.2	3.1	54.7	4.5	9.7	78.7	0.62	116.5	10.6	7.88
NA7	60	7.18	120.2	10.9	8.6	0.20	0.20	0.16	1.7	1.3	0.8	3.8	3.7	10.1	48.9	2.1	10.5	73.2	0.86	100.0	13.8	7.88
NA8	70	7.13	119.6	10.6	8.5	0.10	0.10	0.12	1.9	1.7	0.8	4.4	4.3	11.8	58.3	2.2	8.0	82.4	0.83	75.0	8.7	7.87
NA9	80	7.12	120.1	10.5	8.5	0.10	0.10	0.05	3.3	1.4	0.7	5.4	6.9	26.9	82.4	16.9	6.7	122.9	0.98	77.5	9.9	7.90
NA10	90	7.12	120.4	10.5	8.5	0.00	0.00	0.25	3.6	2.2	0.7	6.5	28.9	22.9	108.3	7.4	8.1	168.2	0.63	110.5	8.8	8.00
NA11	100	7.10	120.4	10.5	8.4	0.20	0.20	0.04	4.4	1.2	0.8	6.4	10.7	22.5	72.0	5.2	7.1	112.3	0.85	71.0	8.3	7.97
NA12	110	7.07	120.6	10.4	8.3	0.20	0.20	0.02	3.7	2.0	0.8	6.5	2.9	21.9	52.5	3.8	6.4	83.7	1.01	77.0	9.6	7.93
NA13	120	7.07	120.5	10.4	8.2	0.30	0.20	0.02	3.3	2.4	0.8	6.5	6.4	22.8	56.4	4.2	13.0	98.6	0.70	113.5	15.4	7.88
NA14	130	7.08	120.4	10.4	8.0	0.20	0.20	0.01	4.3	1.6	0.8	6.7	6.2	27.9	56.7	6.2	8.2	99.0	0.81	118.5	11.0	7.97
NA15	140	7.10	121.1	10.4	7.6	0.40	0.40	0.04	4.5	1.7	1.2	7.4	3.9	28.9	58.5	7.9	24.7	116.0	0.80	212.5	28.8	7.91
NA16	150	7.10	122.1	10.4	7.5	1.20	0.40	0.07	5.0	1.0	2.7	8.7	8.6	29.0	61.5	11.8	20.2	119.3	2.07	234.5	22.1	7.97

NH_4, NO_3, DON, Urea all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = analysed by wet digestion method, ** = analysed by CHN combustion furnace method.

Lake Taupo biannual nutrient database **1995-1996**

Collection Date:- 30 October 1995 Secchi depth = 13.0 m

ID	Depth	pH	EC @25°C	Temp	DO	BOD_5	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
ZH1	1	7.40	115.1	13.7	10.3	0.80	0.60	0.38	0.45	<0.2	2.4	1.27	3.67	<0.2	<0.1	55.7	3	6.89	62.69	0.75	123	10.3
ZH2	10	7.59	116.1	11.9	10.5	0.40	0.95	0.53	0.96	<0.2	0.8	1.94	2.74	<0.2	<0.1	48.0	3	14.69	62.69	0.61	217	18.0
ZH3	20	7.39	117.8	11.4	10.6	-0.05	1.09	0.59	1.18	0.3	1.5	2.41	4.21	0.2	<0.1	51.5	4	19.47	71.17	0.58	285	22.3
ZH4	30	7.58	116.6	11.2	10.7	-0.15	1.15	0.58	1.26	0.2	0.7	2.21	3.11	<0.2	<0.1	44.6	2	17.83	62.43	0.45	242	19.4
ZH5	40	7.48	116.2	10.9	10.7	0.00	0.91	0.57	1.22	<0.2	1.1	1.88	2.98	<0.2	<0.1	41.9	2	13.00	54.90	0.44	183	15.8
ZH6	50	7.36	117.0	10.8	10.3	0.25	0.69	0.42	1.10	<0.2	0.8	1.71	2.51	<0.2	<0.1	41.7	3	8.55	50.25	0.43	116	10.3
ZH7	60	7.28	117.2	10.7	10.3	0.70	0.49	0.28	1.03	<0.2	0.8	1.55	2.35	<0.2	0.1	41.1	3	7.75	48.95	0.40	110	10.3
ZH8	70	7.25	117.8	10.5	10.2	0.50	0.64	0.43	1.03	<0.2	0.6	1.50	2.10	<0.2	0.2	40.4	2	7.27	47.87	0.38	108	9.9
ZH9	80	7.25	117.5	10.5	10.2	0.40	0.72	0.43	1.19	<0.2	0.8	1.58	2.38	<0.2	0.7	41.4	2	7.19	49.39	0.48	115	12.1
ZH10	90	7.30	118.0	10.5	10.1	0.00	0.72	0.40	1.27	0.3	0.6	1.59	2.49	<0.2	1.5	38.5	3	7.30	47.30	0.47	101	12.1
ZH11	100	7.25	117.5	10.5	10.0	0.15	0.71	0.39	1.30	<0.2	0.2	1.77	1.97	<0.2	2.4	36.4	3	10.67	49.47	0.49	107	12.5
ZH12	110	7.25	117.5	10.5	9.9	0.35	0.71	0.38	1.32	<0.2	0.9	1.69	2.59	0.5	4.6	44.3	3	10.26	59.66	0.52	93	13.1
ZH13	120	7.23	117.3	10.5	9.9	0.30	0.70	0.41	1.35	<0.2	1.3	1.55	2.85	0.5	5.6	51.3	9	7.99	65.39	0.51	99	12.9
ZH14	130	7.25	117.3	10.5	9.8	0.20	0.69	0.47	1.32	<0.2	0.4	1.89	2.29	1.3	6.6	49.7	7	13.42	71.02	0.55	112	18.5
ZH15	140	7.25	117.3	10.5	9.6	0.40	0.97	0.47	1.60	<0.2	0.2	2.54	2.74	5.7	11.7	60.6	9	11.77	89.77	0.57	113	15.8
ZH16	150	7.25	117.5	10.5	9.2	0.40	1.77	0.91	1.77	0.7	0.4	3.05	4.15	8.3	13.2	90.9	15	48.30	160.70	0.69	357	55.1

Collection Date:- 28 March 1996 Secchi depth = 14.6 m

ID	Depth	pH	EC @25°C	Temp	DO	BOD_5	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**
	m		µS cm^{-1}	C	g m^{-3}	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}
DR1	1	8.02	117.4	16.8	8.7	0.15	0.31	0.18	0.48	1.3	1.8	0.93	4.03	<0.2	4.7	91.0	1.4	12.69	108.39	0.35	118	9.7
DR2	10	8.02	117.4	16.7	8.7	0.20	0.44	0.25	0.81	1.3	1.5	1.43	4.23	<0.2	7.4	111.0	6.2	12.60	131.00	0.42	149	12.3
DR3	20	7.95	117.6	16.6	8.8	0.25	0.34	0.23	0.76	1.0	1.8	1.30	4.10	0.6	<0.1	60.0	2.0	11.70	72.30	0.35	126	11.7
DR4	30	7.59	119.0	13.7	9.0	0.25	0.39	0.15	1.13	1.5	1.7	1.51	4.71	0.5	0.2	64.0	2.0	11.72	76.42	0.26	101	12.8
DR5	40	7.43	118.9	12.4	8.8	0.25	0.35	0.16	0.97	1.3	1.4	1.41	4.11	1.1	<0.1	51.0	2.2	11.77	63.87	0.22	68	8.6
DR6	50	7.34	119.5	11.6	8.6	0.10	0.32	0.14	0.71	1.8	1.5	1.17	4.47	0.8	5.0	68.0	3.5	8.76	82.56	0.18	60	6.4
DR7	60	7.32	119.4	11.4	8.5	0.25	0.27	0.10	0.48	2.2	1.0	1.06	4.26	1.8	5.9	59.0	1.8	8.32	75.02	0.17	46	5.7
FR8	70	7.29	120.4	11.6	8.5	0.25	0.23	0.13	0.28	2.3	1.5	0.80	4.60	<0.2	14.1	87.0	3.4	6.65	107.75	0.26	48	6.4
DR9	80	7.20	120.8	11.2	8.3	0.20	0.30	0.14	0.17	2.9	1.3	0.83	5.03	1.5	10.0	68.0	1.4	5.15	84.65	0.23	45	5.5
DR10	90	7.20	121.2	11.3	8.2	0.20	0.39	0.14	0.12	2.7	2.1	0.89	5.69	2.5	11.5	55.0	1.4	5.34	74.34	0.17	51	6.7
DR11	100	7.24	121.3	10.9	8.2	0.05	0.45	0.19	0.10	2.8	1.8	0.93	5.53	2.2	11.4	72.0	8.1	9.25	94.85	0.22	46	6.9
DR12	110	7.32	122.1	10.8	8.1	0.25	0.25	0.15	0.08	2.7	1.8	0.88	5.38	1.0	11.5	68.0	1.6	5.86	86.36	0.23	52	8.1
DR13	120	7.39	120.2	10.7	8.3	0.15	0.24	0.11	0.09	2.8	1.2	0.74	4.74	2.2	11.2	75.0	3.8	3.91	92.31	0.26	34	5.3
DR14	130	7.47	120.3	10.7	8.3	0.25	0.31	0.15	0.08	3.1	1.5	0.70	5.30	1.5	12.4	70.0	2.5	3.43	87.33	0.27	45	3.8
DR15	140	7.43	121.1	10.7	8.0	0.15	0.33	0.15	0.08	4.6	1.4	0.96	6.96	2.9	16.0	88.0	5.7	4.28	111.18	0.26	51	7.4
DR16	150	7.52	120.1	10.6	7.8	0.75	0.75	0.63	0.07	4.7	1.5	2.13	8.33	3.2	15.9	140.0	32.4	69.74	228.84	0.52	349	70.7

NH_4, NO_3, DON, UREA all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = analysed by wet digest method, ** = analysed by CHN combustion furnace method.

Lake Taupo biannual nutrient database **1994-1995**

Collection date:- 27 October 1994 Secchi Depth = 11.7 m

ID	Depth	Temp	DO	BOD_5	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	LEAD
	m	C	g m^{-3}	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
MM1	1	11.7	10.5	0.30	0.93	0.55	1.16	1.6	0.7	2.5	4.8	1.1	0.2	61	0.1	16.6	78.9	0.67	193.3	20.3	0.22
MM2	10	11.5	10.6	0.35	0.86	0.49	0.97	1.5	0.4	2.5	4.4	2.2	0.1	50	<0.1	15.2	67.5	0.42	203.8	19.0	
MM3	20	11.5	10.8	0.70	0.87	0.58	0.92	1.2	1.1	2.8	5.1	5.1	<0.1	49	0.2	17.4	71.5	0.40	254.5	19.6	
MM4	30	11.3	10.7	0.30	0.86	0.54	0.99	1.2	0.0	2.3	3.5	<0.4	2.5	88	8.3	13.7	104.2	0.64	199.1	18.9	
MM5	40	10.9	10.5	0.05	0.83	0.49	0.97	1.0	1.4	2.1	4.5	0.4	<0.1	49	1.6	12.4	61.8	0.55	193.7	17.5	
MM6	50	10.9	10.4	0.15	0.85	0.48	0.83	1.0	0.9	2.2	4.1	<0.4	1.1	70	6.4	14.9	86.0	0.37	182.0	16.6	
MM7	60	10.8	10.4	0.00	1.04	0.53	0.88	1.1	0.9	2.1	4.1	<0.4	<0.1	47	1.0	13.6	60.6	0.46	184.6	20.0	
MM8	70	10.7	10.4	0.10	1.23	0.54	1.18	1.1	1.2	2.3	4.6	2.6	0.4	57	1.6	14.7	74.7	0.96	198.7	23.0	
MM9	80	10.6	10.4	0.35	1.07	0.45	1.37	1.0	1.4	2.4	4.8	1.2	0.1	47	1.0	15.3	63.6	0.51	154.4	22.6	
MM10	90	10.5	10.4	0.10	1.24	0.48	1.79	1.0	1.1	1.9	4.0	1.5	<0.1	43	1.3	15.6	60.1	0.48	152.0	22.0	
MM11	100	10.5	10.2	0.10	1.22	0.49	1.76	1.2	1.0	2.5	4.7	1.5	0.4	58	1.8	17.9	77.8	1.21	183.7	33.9	
MM12	110	10.5	10.3	0.45	1.15	0.48	1.78	1.4	0.4	3.0	4.8	1.4	0.4	52	1.9	16.8	70.6	0.65	105.8	28.4	
MM13	120	10.4	10.2	0.00	0.96	0.41	1.94	1.1	0.7	2.8	4.6	<0.4	0.6	61	1.6	16.7	78.4	1.00	106.7	29.8	
MM14	130	10.4	9.8	0.00	1.07	0.41	2.37	1.0	1.2	2.6	4.8	6.8	0.9	73	5.5	20.8	101.5	0.53	157.6	23.7	
MM15	140	10.4	9.8	0.00	1.63	0.57	2.32	1.1	1.1	2.3	4.5	3.7	0.9	61	1.9	20.6	86.2	0.44	176.0	19.2	0.36
MM16	150	10.3	9.9	0.25	1.73	0.75	2.49	1.8	0.8	2.3	4.9	4.2	1.9	60	12.1	39.6	105.7	0.57	303.6	44.0	1.09
MM17	Tube				0.99	0.53	0.84	1.3	1.0	2.0	4.3	0.5	0.2	39	3.1	15.9	55.6	0.53			

Collection date:- 19 April 1995 Secchi Depth = 16.1 m

ID	Depth	Temp	DO	BOD_5	SS	VSS	Chlor_*a*	DRP	DOP	PP	TP	NH_4	NO_3	DON	UREA	PN*	TN	DOC	PC	PN**	LEAD
	m	C	g m^{-3}	g m^{-3}	g m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	g m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}
SZ1	1	18.4	9.2	0.10	0.22	0.22	0.95	3.3	1.7	1.3	6.3	3.6	0.9	83	7.7	14.6	102.1	0.70	160.5	16.8	<0.5
SZ2	10	18.2	9.3	0.15	0.28	0.28	0.89	2.2	1.2	1.5	4.9	2.0	0.8	59	6.5	13.5	75.3	0.68	189.0	18.1	<0.5
SZ3	20	18.2	9.2	0.25	0.24	0.24	0.80	1.3	0.0	1.4	2.7	1.0	1.0	56	4.5	10.7	68.7	0.60	153.5	14.5	
SZ4	30	16.5	9.3	0.50	0.26	0.26	1.35	1.3	1.0	1.6	3.9	1.2	0.7	55	8.4	13.4	70.3	0.60	151.5	14.7	<0.5
SZ5	40	12.5	9.7	0.45	0.16	0.16	0.98	1.1	0.2	1.2	2.5	2.0	1.0	47	4.4	8.0	58.0	0.60	111.0	8.6	
SZ6	50	11.6	9.5	0.60	0.10	0.10	0.86	2.0	0.5	1.2	3.7	1.7	1.3	47	5.3	8.8	58.8	0.60	119.0	10.5	
SZ7	60	11.1	9.5	0.30	0.07	0.07	0.73	1.0	1.1	1.2	3.3	0.5	5.4	40	5.3	7.0	52.9	0.50	83.8	9.0	
SZ8	70	10.9	9.5	0.55	0.04	0.04	0.45	1.4	0.7	1.3	3.4	0.5	7.7	39	6.2	8.7	55.9	0.55	97.4	11.1	
SZ9	80	10.8	9.0	0.40	0.10	0.10	0.35	1.6	0.0	1.0	2.6	0.5	11.3	36	3.2	6.1	53.9	0.53	75.5	8.2	
SZ10	90	10.7	8.7	0.30	0.07	0.07	0.25	1.3	0.5	1.4	3.2	0.5	15.7	40	6.1	9.8	66.0	0.50	92.5	9.6	
SZ11	100	10.7	8.6	0.75	0.01	0.01	0.23	2.8	0.1	0.8	3.7	0.4	18.4	37	6.3	8.2	64.0	0.60	68.7	6.3	
SZ12	110	10.7	8.3	0.50	0.09	0.09	0.20	2.1	1.0	1.3	4.4	0.5	20.4	41	4.4	12.4	74.3	0.55	99.0	14.0	
SZ13	120	10.7	8.2	0.40	0.05	0.05	0.16	2.5	0.0	0.9	3.4	0.5	22.0	37	3.5	4.8	64.3	0.50	62.1	4.5	
SZ14	130	10.7	8.0	0.70	0.00	0.00	0.17	3.1	0.0	1.0	4.1	0.6	26.5	45	3.5	5.9	78.0	0.55	77.0	7.4	
SZ15	140	10.6	7.8	1.00	0.28	0.25	0.17	4.1	0.0	1.7	5.8	0.5	30.7	44	3.6	11.2	86.4	0.60	133.5	12.4	<0.5
SZ16	150	10.6	7.5	2.05	49.47	5.58	64.05	38.9	1.4	*	40.3	1.7	40.9	48	11.4	*	90.6	0.75	*	*	<0.5
Surficial sediment																					10.5

* = Sediment contamination, sample not filtered for analysis.

NH_4, NO_3, DON, UREA all as N Detection limits: DRP 0.5; NO_3-N 0.5; NH_4-N 1.0 mg m^{-3}

* = analysed by wet digestion method, ** = analysed by CHN combustion furnace method.

Appendix 5. Phytoplankton data

In this report phytoplankton abundance is reported in cell counts per ml and as biovolume (cubic microns per ml). Units of biomass are listed as "μm^3" in the following tables. The units are actually μm^3 /mL. In the reporting system used until 2007 algal dominance (rank 1 = dominant to rank 10 = rare) was calculated from algal biovolume.

Cell counts may be reported as "0" despite a large biovolume where the algal species is large or colonial, e.g., *Botryococcus braunii.*

The 2014-2015 algal data has been added to this report and compiled with the data from the previous years, as has been done with temperature, DO, and nutrient data.

Name changes: The genus of planktonic species of *Anabaena* has changed to *Dolichospermum* as of August 2009.

From August 2008 phytoplankton data have been provided from a depth of 50m, which generally coincides with the deep chlorophyll *a* maxima in the lake. These samples were collected by van Dorn bottle and are placed in a separate table from the 10-m tube samples.

Lake Taupo phytoplankton species composition and biovolume (10 m tube) 2014-2015

From Site A (Mid Lake) 1/07/2014-18/06/2015

Sample code	WO1	WO1	WO4	WO4	XZ1	XZ1	XZ4	XZ4	ZJ1	ZJ1	AP1	AP1	AP4	AP4	BY1	BY1	BY4	BY4	DY1	DY1
Sampling date	1/07/2014	1/07/2014	21/07/2014	21/07/2014	11/08/2014	11/08/2014	27/08/2014	27/08/2014	9/09/2014	9/09/2014	8/10/2014	8/10/2014	20/10/2014	20/10/2014	5/11/2014	5/11/2014	25/11/2014	25/11/2014	18/12/2014	18/12/2014
	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
Species composition by class	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)
Blue greens (Cyanophyceae)																				
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	5.8	668	3.4	397	1.5	176	0.9	102	0.8	96	1.4	162	8.7	1007	10.1	1168	10.1	1176	2.1	241
Dolichospermum planctonicum (formerly Anabaena planctonica)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Planktolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Schizothrix sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum circinale	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.2	2	0.0	0	0.2	3	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	6.0	54	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.4	8	0.0	0	0.8	16
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	2.4	22	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																				
Actinastrum hantzschii	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / Ankistrodesmus falcatus	33	1386	32	1363	105	4431	88	3681	47	1977	36	1522	14	591	19	818	14	568	41	1704
Stichococcus contortus	6	117	38	682	90	1626	56	1003	43	779	9	156	4	78	31	565	13	234	2	39
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0	3178	0	2943	0	0	0	4790	0	0	0	0	0	6814	0	0	0	0	0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	1	70	0	0	0	0	4	281	2	141	2	141	3	211	0	0	0	0	5	352
Dictyosphaerium sp.	67	3690	23	1279	0	0	42	2291	0	0	0	0	11	595	16	893	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa	1	114	1	114	6	682	0	0	2	227	0	0	1	114	0	0	5	568	0	0
Eudorina elegans	0	56	0	61	0	41	0	46	0	0	0	0	0	0	0	0	0	0	0	0
Pandorina sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocystis sp.	3	461	7	999	0	0	4	538	15	2151	8	1076	5	691	3	461	8	1076	11	1536
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	2	0	0	0	6	0	15	0	19	0	25	0
Tetraedon gracile	0	0	0	0	0	0	1	60	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																				
Asterionella formosa	25	6968	40	11210	69	19389	39	11058	54	15148	10	2878	9	2424	9	2575	6	1818	5	1515
Aulacoseira granulata	15	4528	16	5031	39	12243	27	8386	148	45953	70	21802	47	14423	10	3019	20	6205	3	839
Aulacoseira granulata var. angustissima	21	5486	4	985	34	8721	11	2813	40	10409	27	7033	25	6470	12	3095	9	2391	0	0
Attheya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	2	849	1	566	0	0	0	0	1	566	1	283	1	283	0	0	1	566	0	0
Cyclotella stelligera	10	1558	9	1472	10	1558	6	1039	10	1645	8	1212	8	1212	8	1298	8	1298	3	519
Fragilaria crotonensis	62	22273	53	18980	57	20530	40	14332	20	7166	3	1162	20	7166	12	4261	41	14526	22	7941
Fragilaria sp.	0	0	0	0	0	0	18	6585	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia sp.	1	211	7	2743	2	844	6	2321	4	1477	2	633	0	0	1	422	3	1055	3	1055
Synedra sp.	1	213	0	0	1	213	4	1705	2	639	2	639	2	639	1	426	2	639	2	639
Amphora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	2	238	3	298	2	179	1	119	1	119	0	0	1	119	1	119	3	357	2	179
Desmids (Mesotaeniaceae, Desmidiaceae)																				
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	1	324	0	0	0	0	0	0
Closterium acutum var. variable	4	1428	2	612	2	612	0	0	2	612	0	0	0	0	1	408	0	0	1	408
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																				
Dinobryon sp.	21	1213	0	0	0	0	11	670	0	0	8	479	47	2745	110	6480	227	13406	23	1341
Cryptomonas sp.	0	0	0	0	0	0	2	234	0	0	0	0	0	0	1	78	1	78	0	0
Synura sp.	0	0	0	0	0	0	3	187	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																				
Ceratium hirundinella	0	2100	0	0	0	0	0	0	0	0	0	0	0	0	0	2100	0	2100	0	2100
Gymnodinium sp. 1	1	595	0	0	1	1190	1	595	0	0	0	0	1	595	0	0	0	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	1	4328	0	0	0	0	1	2164	0	0	4	15148	0	0	1	4328
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm																				
Flagellates < 5µm/unicells	32	1117	48	1666	25	890	56	1950	28	985	22	757	133	4639	35	1231	40	1401	21	738

Sample code	FE1	FE1	FE4	FE4	GN1	GN1	HE1	HE1	HN1	HN1	JA1	JA1	JA4	JA4	KS1	KS1	KS4	KS4	MW1	MW1
Sampling date	15/01/2015	15/01/2015	29/01/2015	29/01/2015	12/02/2015	12/02/2015	26/02/2015	26/02/2015	9/03/2015	9/03/2015	9/04/2015	9/04/2015	22/04/2015	22/04/2015	11/05/2015	11/05/2015	27/05/2015	27/05/2015	18/06/2015	18/06/2015
	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
Species composition by class	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)
Blue greens (Cyanophyceae)																				
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	0.0	0	3.3	383	7.5	871	4.6	529	22.0	2547	25.6	2966	12.3	1421	19.2	2221	8.0	922	0.9	99
Dolichospermum planctonicum (formerly Anabaena planctonica)	0.0	0	1.7	266	2.1	338	0.2	32	1.1	431	0.9	141	0.0	0	1.0	160	0.3	40	0.4	59
Planktolyngbya sp.	0.0	0	0.6	6	0.0	0	0.0	0	0.0	0	3.7	41	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Schizothrix sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum circinale	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	25.4	229	3.4	31
Microcystis sp.	0.0	0	0.0	0	3.2	256	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	3.6	90	0.0	0	0.4	11	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.8	16	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																				
Actinastrum hantzschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / Ankistrodesmus falcatus	154	6456	2	69	0	0	0	0	1	46	6	254	5	208	10	438	178	7494	28	1176
Stichococcus contortus	0	0	0	0	0	0	0	0	0	0	0	0	4	79	8	148	103	1858	37	662
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0	0	0	0	0	0	0	0	0	0	0	124000	0	0	0	0	0	7882	0	38976
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	115	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71	1	71
Dictyosphaerium sp.	9	483	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	6	332
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Elakatothrix gelatinosa	1	115	0	0	0	0	1	115	2	231	2	231	2	231	3	346	5	519	3	346
Eudorina elegans	0	41	0	0	0	0	0	82	0	82	1	179	0	0	0	0	0	64	1	151
Pandorina sp.	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	26	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Oocystis sp.	25	3586	14	1949	10	1481	6	858	10	1481	5	702	6	858	8	1091	9	1325	6	858
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	10	0	20	0	26	0	25	0
Tetraedon gracile	0	0	0	0	1	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	18	1056	4	264	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	206	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	7	0	0	0	5	0	0	0	0	0	19	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																				
Asterionella formosa	4	1230	1	307	3	769	2	615	1	190	0	39	0	6	0	36	0	90	0	78
Aulacoseira granulata	0	0	0	0	2	511	0	0	0	31	0	0	0	0	6	1872	4	1191	14	4255
Aulacoseira granulata var. angustissima	2	571	0	62	0	99	0	71	1	146	0	44	0	0	0	0	0	0	0	0
Attheya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	0	0	0	0	1	287	0	0	0	0	0	0
Cyclotella stelligera	2	351	2	264	2	264	1	176	0	0	0	0	1	176	1	176	2	351	4	615
Fragilaria crotonensis	30	10810	14	5066	2	595	5	1693	4	1504	4	1271	0	0	0	136	0	0	1	279
Fragilaria sp.	0	0	0	0	0	0	0	0	0	0	0	0	4	1376	0	0	4	1376	0	0
Nitzschia sp.	1	428	0	0	1	214	1	214	0	0	1	428	5	1927	10	3854	17	6637	7	2783
Synedra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1514	5	1947
Amphora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	121	2	242	1	121
Desmids (Mesotaeniaceae, Desmidiaceae)											0	0								
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. variable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	414	1	207
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. gracilis	1	10980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																				
Dinobryon sp.	54	3207	2	142	36	2105	15	907	26	1522	12	713	0	0	18	1037	12	680	0	0
Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	1	79	0	0	1	79	2	237
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																				
Ceratium hirundinella	2	35700	0	3360	0	1960	0	840	0	1470	0	1680	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	1	550	0	0	1	604	0	0	0	0	0	11	0	33	0	0	0	44	0	0
Gymnodinium sp. 2	0	6000	0	0	2	43920	0	0	0	0	0	400	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	1	2196	1	4328	0	0	0	80	0	160	0	200	0	120
Gonyaulax sp.	4	8784	1	1098	9	18666	5	9882	14	28548	4	7686	0	0	0	0	0	0	0	0
Flagellates 5µm																				
Flagellates < 5µm/unicells	38	1345	58	2018	181	6322	63	2210	153	5361	15	2001	36	4817	26	3483	35	4743	27	3706

Lake Taupo phytoplankton enumeration (50 m van Dorn) 2014-15

Cell counts and biovolume

Sample code	WO3	WO3	WO6	WO6	XZ3	XZ3	XZ6	XZ6	ZJ3	ZJ3	AP3	AP3	AP6	AP6	BY3	BY3	BY6	BY6
Sampling date	1/07/2014	1/07/2014	21/07/2014	21/07/2014	11/08/2014	11/08/2014	27/08/2014	27/08/2014	9/09/2014	9/09/2014	8/10/2014	8/10/2014	20/10/2014	20/10/2014	5/11/2014	5/11/2014	25/11/2014	25/11/2014
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																		
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	10.9	1260	0.2	17	1.3	154	1.0	115	1.1	122	2.2	252	0.3	29	10.5	1215	4.8	557
Dolichospermum planctonicum (formerly Anabaena planctonica)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Planktolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Schizothrix sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	2	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.0	20	0.0	0
Aphanothece sp.	0.0	0	2.5	23	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																		
Actinastrum hantzschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / Ankistrodesmus falcatus	22	934	40	1695	72	3022	90	3784	53	2211	19	811	35	1450	9	369	32	1351
Stichococcus contortus	23	421	16	295	93	1674	74	1327	77	1390	7	126	16	295	9	168	21	379
Kirchneriella contorta	0	0	0	0	5	154	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0	0	0	0	0	0	0	0	0	0	0	1563	0	0	0	4635	0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	1	76	0	0	8	494	0	0	4	228	2	152	4	228	2	152	2	152
Dictyosphaerium sp.	26	1448	25	1351	0	0	0	0	0	0	0	0	16	869	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa	2	246	8	799	2	246	8	799	0	0	0	0	1	123	0	0	0	0
Eudorina elegans	0	0	0	0	0	0	0	9	0	32	0	4	0	0	0	0	0	4
Pandorina sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
Oocystis sp.	9	1246	9	1329	6	914	12	1661	7	997	18	2575	9	1329	4	498	5	748
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	5	243	0	0	0	0	0	0	5	243	0	0	0	0
Sphaerocystis schroeteri	7	0	0	0	12	0	14	0	7	0	12	0	18	0	35	0	9	0
Tetraedon gracile	0	0	0	0	0	0	1	64	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																		
Asterionella formosa	23	6552	43	12121	85	23751	104	29156	50	14087	15	4095	12	3276	24	6716	2	655
Aulacoseira granulata	12	3627	7	2176	40	12513	144	44793	130	40441	80	24845	104	32280	68	21218	23	7073
Aulacoseira granulata var. angustissima	0	0	6	1673	41	10647	30	7757	39	10191	17	4411	40	10343	5	1369	11	2738
Attheya sp.	1	351	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	1	612	0	0	0	0	0	0	0	0	1	306
Cyclotella stelligera	11	1778	7	1123	11	1778	15	2340	13	2059	8	1217	9	1404	4	655	5	749
Fragilaria crotonensis	33	11938	25	8796	61	21781	63	22618	26	9215	2	838	8	2932	18	6492	36	12985
Fragilaria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia sp.	1	456	2	913	11	4107	2	913	1	456	1	228	0	0	0	0	1	228
Synedra sp.	0	0	1	461	4	1383	1	461	2	691	2	691	1	461	3	1152	1	461
Amphora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sp.			0	0	1	306	0	0	0	0	0	0	0	0	1	612	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	1	129	2	193	2	193	1	129	1	129	2	257	2	193	1	129	1	129
Desmids (Mesotaeniaceae, Desmidiaceae)																		
Closterium aciculare	0	0	0	0	1	701	2	1402	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. variable	5	1764	2	882	0	0	0	0	1	441	1	441	0	0	0	0	0	0
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																		
Dinobryon sp.	4	207	0	0	0	0	0	0	0	0	19	1104	2	138	36	2140	19	1139
Cryptomonas sp.	1	84	1	84	0	0	0	0	1	84	0	0	0	0	0	0	0	0
Synura sp.	0	0	2	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																		
Ceratium hirundinella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	0	0	1	644	1	644	0	0	0	0	0	0	1	1287	0	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2340
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	1	1170	0	0	0	0	0	0
Flagellates 5µm																		
Flagellates < 5µm/unicells	33	1167	43	1495	49	1699	32	1126	32	1106	23	819	29	1024	35	1208	23	819

Sample code	DY3	DY3	FE3	FE3	FE6	FE6	GN3	GN3	HE3	HE3	HN3	HN3	HN6	HN6	JA3	JA3	JA6	JA6	KS3	KS3	KS6	KS6	MW3	MW3
Sampling date	18/12/2014	18/12/2014	15/01/2015	15/01/2015	29/01/2015	29/01/2015	12/02/2015	12/02/2015	26/02/2015	26/02/2015	9/03/2015	9/03/2015	23/03/2015	23/03/2015	9/04/2015	9/04/2015	22/04/2015	22/04/2015	11/05/2015	11/05/2015	27/05/2015	27/05/2015	18/06/2015	18/06/2015
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																								
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	3.6	421	0.0	0	0.0	0	1.7	195	0.1	9	1.8	203	99.6	11554	0.7	79	0.2	19	4.2	492	3.6	421	6.4	738
Dolichospermum planctonicum (formerly Anabaena planctonica)	0.0	0	0.0	0	0.0	0	1.4	222	0.2	32	0.0	0	0.3	48	0.0	0	0.3	42	0.0	0	0.4	69	0.4	69
Planktolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.5	184
Schizothrix sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	3.3	30	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	13.0	117	10.0	90
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.4	112	0.0	0
Snowella sp.	0.0	0	0.3	7	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.7	14	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																								
Actinastrum hantzschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / Ankistrodesmus falcatus	75	3145	93	3920	2	92	5	231	3	115	20	853	0	0	11	461	142	5972	111	4681	158	6618	39	1637
Stichococcus contortus	27	484	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	104	1868	1	0
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0	5879	0.0	0	0	50	0	34200	0	0	0	13775	0	5200	0	10400	0	0	0.0	0	0	0	0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	2	152	0	0	0	0	0	0	0	0	0	16	2	143	2	143	4	250	4	285	2	143	2	143
Dictyosphaerium sp.	6	354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
Elakatothrix gelatinosa	2	246	2	231	0	0	0	0	0	0	0	0	9	922	0	0	0	0	0	0	3	288	2	231
Eudorina elegans	0	0	0	37	1	159	0	61	1	364	0	81	1	264	6	1608	0	87	2	384	20	5200	1	358
Pandorina sp	0	0	0	0	0	0	0	0	0	0	0	8	0	102	0	0	0	41	0	0	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocystis sp.	8	1080	9	1247	3	468	3	468	4	624	7	1013	13	1871	8	1169	10	1403	4	546	13	1793	6	858
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	2	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	7	0	50	0	33	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	30	1800	34	2016	0	0	0	0	165	9882	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	0	0	0	0	0	0	0	0	4	351	4	0	0	0	0	33	0	0	0	0	0	0	0	2
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																								
Asterionella formosa	9	2457	0	0	14	3997	44	12298	21	5995	21	5841	8	2306	24	6610	25	6917	19	5380	10	2767	34	9531
Aulacoseira granulata	5	1632	3	1021	0	0	0	0	0	0	7	2042	0	0	0	0	0	0	5	1702	12	3744	13	3914
Aulacoseira granulata var. angustissima	0	0	0	83	0	120	6	1622	4	1144	3	796	1	169	2	390	0	0	0	0	0	0	0	0
Attheya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	287	0	0
Cyclotella stelligera	9	1498	4	615	2	264	2	351	1	176	3	527	1	176	1	176	1	176	2	351	1	176	4	615
Fragilaria crotonensis	64	22828	21	7469	5	1905	0	0	37	13168	10	3666	7	2391	6	2048	0	0	0	86	7	2359	2	558
Fragilaria sp.	0	0	0	0	0	0	0	0	1	393	0	0	0	0	1	430	0	0	0	0	0	0	0	0
Nitzschia sp.	4	1597	5	1927	1	428	2	642	1	214	0	0	0	0	1	428	2	642	3	1071	13	4925	10	3854
Synedra sp.	6	2535	0	0	0	0	0	0	0	0	0	0	0	0	3	1298	5	1947	2	649	2	865	10	3894
Amphora sp.	0	0	1	287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	287	0	0
Epithemia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	3	322	1	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	60	1	121
Desmids (Mesotaeniaceae, Desmidiaceae)							0	0							0	0								
Closterium aciculare	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0
Closterium acutum var. variable	2	882	1	245	1	219	0	60	0	90	1	309	0	3	1	517	2	828	1	414	0	0	0	0
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	3	6917	1	1153	2	4612	0	0	1	2306	0	21	0	63	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. gracilis	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	600	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																								
Dinobryon sp.	0	0	0	0	0	0	1	32	0	0	2	130	2	140	0	0	0	0	0	0	16	939	0	4
Cryptomonas sp.	0	0	1	158	0	0	0	0	0	0	0	0	1	79	0	0	1	158	0	0	0	0	1	79
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																								
Ceratium hirundinella	0	420	0	630	0	280	0	1120	0	2520	0	0	0	1960	0	1120	0	0	0	280	1	15372	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	604	0	0
Gymnodinium sp. 2	0	0	0	2000	0	0	0	200	0	1800	0	1200	0	1200	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2196	2	8784
Gonyaulax sp.	0	0	0	0	0	0	1	1098	0	0	0	0	0	40	0	40	0	0	0	0	0	0	0	0
Flagellates 5µm																								
Flagellates < 5µm/unicells	20	696	60	2114	53	1845	62	2171	48	1691	58	2037	10	365	30	4076	13	1779	27	3632	33	4521	41	5485

Lake Taupo phytoplankton enumeration (10-m tube) 2013-14

Cell counts and biovolume	6/08/2013	6/08/2013	21/08/2013	21/08/2013	3/09/2013	3/09/2013	18/09/2013	18/09/2013	2/10/2013	2/10/2013	21/10/2013	21/10/2013	7/11/2013	7/11/2013	20/11/2013	20/11/2013	2/12/2013	2/12/2013	8/01/2014	8/01/2014	28/01/2014	28/01/2014	12/02/2014	12/02/2014	25/02/2014	25/02/2014	12/03/2014	12/03/2014	27/03/2014	27/03/2014	9/04/2014	9/04/2014	20/05/2014	20/05/2014	5/06/2014	5/06/2014	1/07/2014	1/07/2014	21/07/2014	21/07/2014
Cells per ml numbers may be affected by rounding																																								
Sample code	GA1	GA1	GA4	GA4	GH1	GH1	HG4	HG4	IJ1	IJ1	IJ4	IJ4	JV1	JV1	JV4	JV4	LB1	LB1	MM1	MM1	MM4	MM4	OK1	OK1	OK4	OK4	QC1	QC1	QC4	QC4	RP1	RP1	TB4	TB4	UY1	UY1	WO1	WO1	WO4	WO4
Sampling date	6/08/2013	6/08/2013	21/08/2013	21/08/2013	3/09/2013	3/09/2013	18/09/2013	18/09/2013	2/10/2013	2/10/2013	21/10/2013	21/10/2013	7/11/2013	7/11/2013	20/11/2013	20/11/2013	2/12/2013	2/12/2013	8/01/2014	8/01/2014	28/01/2014	28/01/2014	12/02/2014	12/02/2014	25/02/2014	25/02/2014	12/03/2014	12/03/2014	27/03/2014	27/03/2014	9/04/2014	9/04/2014	20/05/2014	20/05/2014	5/06/2014	5/06/2014	1/07/2014	1/07/2014	21/07/2014	21/07/2014
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																																								
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	5.9	682	10.9	1260	17.8	2062	7.3	843	6.5	754	17.0	1970	15.5	1800	0.5	59	18.2	2110	9.9	1148	34.3	3975	26.3	3055	15.1	1756	11.0	1276	26.5	3071	12.5	1450	11.9	1384	10.8	1247	5.8	668	3.4	397
Leptolyngbya sp.	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.9	10	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.4	144	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	31.8	6619	12.2	2538	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	4.6	41	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf					0.0	0																																		
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	1.0	25	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	3.5	73	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.3	44	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																					0.0	0																		
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	53	2227	104	4363	34	1409	56	2363	7	295	12	523	13	545	3	136	17	704	52	2181	77	3227	3	136	1	45	3	136	2	68	2	68	18	773	32	1341	33	1386	32	1363
Stichococcus contortus	6	117	9	156	15	263	30	536	17	302	0	0	0	0	0	0	2	39	6	117	5	88	4	68	2	39	0	0	0	0	0	0	0	0	6	117	6	117	38	682
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6261	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11772	0.0	5973	0.0	3245	0.0	3178	0.0	2943
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	1	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	141	1	70	0	0
Dictyosphaerium	2	119	0	0	0	0	0	0	0	0	21	1131	12	684	0	0	0	0	0	0	3	179	0	0	6	327	47	2559	7	387	0	0	8	446	34	1875	67	3690	23	1279
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	1	114	0	0	1	114	0	0	0	0	9	966	0	0	1	114	5	511	1	114	10	1022	0	0	0	0	1	114	0	0	2	170	2	170	2	227	1	114	1	114
Eudorina elegans	0	0	1	225	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	41	0	28	0	0	0	0	0	0	0	0	0	0	0	56	0	61
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	1	77	6	922	0	0	8	1152	2	230	8	1076	8	1076	12	1767	21	2919	9	1229	9	1229	10	1383	16	2228	8	1076	6	922	8	1152	6	922	14	1921	3	461	7	999
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	2	355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	2	113	4	225	0	0	0	0	0	0	2	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	4	0	0	0	19	0	6	0	18	0	23	0	9	0	36	0	52	0	41	0	14	0	11	0	0	0	0	0	4	0	9	0	18	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	2	179	0	0	0	0	0	0	2	179	2	238	5	595	2	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	19	1122	28	1680	0	0	0	0	0	0	0	0	6	360	0	0	4	210	0	0	4	240	0	0	0	0	3	180	3	150	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	6	0	3	0	19	0	4	0	0	0	0	0	19	0	0	0	0	0	3	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																					0	0																		
Asterionella formosa	27	7423	189	52867	186	52109	78	21813	11	3030	10	2727	28	7725	19	5453	5	1515	4	1212	0	0	2	454	6	1666	6	1818	3	909	0	0	12	3484	114	31962	25	6968	40	11210
Aulacoseira granulata	6	1845	4	1342	10	3019	47	14423	17	5199	31	9727	31	9559	9	2851	11	3354	0	0	0	0	0	0	0	0	10	3186	0	0	0	0	0	0	5	1509	15	4528	16	5031
Aulacoseira granulata var. *angustissima*	1	281	44	11534	36	9424	25	6470	22	5767	14	3517	9	2251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	5345	21	5486	4	985
Attheya sp.	0	0	2	487	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	325	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	1	283	0	0	0	0	0	0	0	0	0	0	0	0	1	566	2	849	2	1132	0	0	0	0	2	1132	0	0	2	849	1	566
Cyclotella stelligera	3	433	12	1991	1	173	21	3376	3	519	11	1818	9	1472	3	433	2	346	2	346	0	0	2	260	3	519	5	866	5	866	4	692	13	2077	24	3809	10	1558	9	1472
Fragilaria crotonensis	43	15494	96	34475	97	34862	30	10846	10	3680	5	1937	58	20724	28	9878	55	19755	18	6391	32	11427	43	15301	64	22854	60	21498	139	49775	173	61977	11	4067	85	30407	62	22273	53	18980
Fragilaria sp.	0	0	0	0	6	2324	0	0	0	0	9	3099	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia sp.	5	2110	27	10339	20	7807	0	0	1	211	2	633	9	3376	1	211	2	633	1	211	1	422	2	633	0	0	0	0	0	0	0	0	4	1688	6	2321	1	211	7	2743
Synedra sp.	0	0	0	0	0	0	3	1279	0	0	1	213	2	639	2	853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	213	0	0
Amphora sp.	0	0	1	566	0	0	0	0	0	0	1	283	0	0	0	0	3	1415	0	0	0	0	0	0	0	0	1	283	0	0	0	0	0	0	1	283	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	0	0	2	179	0	0	3	298	3	357	0	0	0	0	2	179	0	0	1	60	0	0	0	0	1	60	0	0	3	298	3	298	2	238	3	298
Desmids (Mesotaeniaceae, Desmidiaceae)																					0	0																		
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3241	0	0	0	0
Closterium acutum var. *variable*	1	204	1	204	2	612	2	612	1	204	2	816	3	1224	0	0	1	408	1	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1428	2	612
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)			0	0																	0	0																		
Dinobryon sp.	0	0	1	32	0	0	0	0	0	0	12	734	50	2968	142	8363	6	383	72	4245	124	7341	15	894	27	1564	0	0	9	511	0	0	8	447	2	96	21	1213	0	0
Cryptomonas sp.	0	0	0	0	1	78	2	234	1	78	0	0	2	234	0	0	1	156	0	0	0	0	0	0	1	78	0	0	1	156	0	0	1	78	3	467	0	0	0	0
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																					0	0																		
Ceratium hirundinella	0.20	4200	4.10	86100	4.80	100800	0	6300	0	0	0	2100	0	0	0	2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2100	0	0
Gymnodinium sp. 1	0	0	1	1190	1	1190	0	0	0	0	0	0	0	0	1	595	1	1190	0	0	1	595	0	0	0	0	0	0	1	1190	2	1785	1	1190	0	0	1	595	0	0
Gymnodinium sp. 2	0.10	2000	0.54	10820	2.10	42000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	1	4328	1	2164	10	41116	4	15148	8	30296	3	12984	6	25968	2	8656	0	0	1	4328	1	2164	1	4328	2	6492	2	8656	0	0	0	0	0	0
Gonyaulax sp.	0	0	1	1082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm																					0	0																		
Flagellates < 5µm/unicells	15	530	51	1780	179	6249	62	2178	10	360	36	1269	42	1477	25	871	47	1647	49	1723	51	1799	17	606	22	757	24	833	22	757	28	985	46	1609	54	1875	32	1117	48	1666

Lake Taupo phytoplankton enumeration (50 m van Dorne) 2013-14

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	GA3	GA3	GA6	GA6	GH3	GH3	HG6	HG6	IJ3	IJ3	IJ6	IJ6	JV3	JV3	JV6	JV6	LB3	LB3
Sampling date	6/08/2013	6/08/2013	21/08/2013	21/08/2013	3/09/2013	3/09/2013	18/09/2013	18/09/2013	2/10/2013	2/10/2013	21/10/2013	21/10/2013	7/11/2013	7/11/2013	20/11/2013	20/11/2013	2/12/2013	2/12/2013
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)
Blue greens (Cyanophyceae)																		
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.1	9	6.4	744	12.8	1487	1.7	196	0.8	87	2.2	254	0.1	8	1.5	177	5.2	600
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf					0.0	0												
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.3	7	0.4	8	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.9	22	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.6	11	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																		
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	56	2334	133	5602	27	1155	52	2187	9	393	8	344	9	393	4	172	17	713
Stichococcus contortus	0	0	32	579	19	347	25	442	11	190	5	95	2	42	5	84	7	126
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	2	491	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	1	76	0	0	0	0	0	0	0	0
Dictyosphaerium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	0	0	0	0	0	0	0	0	0	0	4	369	0	0	0	0	0	0
Eudorina elegans	0	28	0	0	0	7	0	4	0	0	0	0	0	0	0	3	0	3
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	1	166	2	332	5	665	15	2077	4	498	5	748	5	665	3	415	11	1495
Planktosphaeria gelatinosa	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	5	243	5	243	1	61	0	0	1	61	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	14	0	27	0	7	0	7	0	5	0	2	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	1	129	1	64	0	0	0	0
Volvox aureus	0	0	11	672	5	270	0	0	0	0	4	210	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	6	0	0	0	30	0	0	0	0	0	0	0	1	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																		
Asterionella formosa	18	4914	128	35708	267	74857	70	19656	11	3112	16	4423	6	1638	10	2785	27	7699
Aulacoseira granulata	10	3083	20	6166	42	12876	53	16322	50	15596	52	16140	49	15052	36	11244	26	7979
Aulacoseira granulata var. *angustissima*	5	1369	20	5171	53	13841	39	10191	21	5476	7	1825	52	13537	0	0	0	0
Attheya sp.	1	351	1	351	2	527	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	1	612	0	0	1	612	0	0	0	0
Cyclotella stelligera	3	468	30	4774	15	2434	24	3838	8	1310	10	1591	8	1217	4	562	1	94
Fragilaria crotonensis	0	0	32	11519	45	16126	9	3351	14	5026	18	6492	2	838	15	5236	29	10262
Fragilaria sp.	0	0	0	0	2	628	0	0	0	0	0	0	0	0	0	0	8	2723
Nitzschia sp.	2	684	13	5019	21	8213	0	0	0	0	0	0	0	0	0	0	1	228
Synedra sp.	1	230	0	0	0	0	4	1383	0	0	2	691	1	230	1	230	1	461
Amphora sp.	0	0	0	0	0	0	1	306	1	306	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	1	129	0	0	0	0	4	386	1	64	1	129	0	0	1	64	1	129
Desmids (Mesotaeniaceae, Desmidiaceae)																		
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	0	0	1	221	1	441	5	1764	2	662	1	441	2	662	1	221	1	221
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)			0	0														
Dinobryon sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	173	12	725
Cryptomonas sp.	0	0	0	0	1	168	1	84	0	0	0	0	2	337	1	168	1	84
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																		
Ceratium hirundinella	0.10	2100	0.13	2730	0	9870	0	630	0	420	0	210	0	0	0	210	0	420
Gymnodinium sp. 1	0	0	2	2574	1	1287	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 2	0.03	600	0.00	0	0	3000	0	0	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	1	2340	0	0	1	4680	0	0	0	0	0	0
Gonyaulax sp.	0	0	1	1170	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm																		
Flagellates < 5µm/unicells	7	246	177	6204	171	5979	67	2334	14	491	20	696	19	676	15	532	16	573

Sample code	MM3	MM3	MM6	MM6	OK3	OK3	OK6	OK6	QC3	QC3	QC6	QC6	RP3	RP3	TB6	TB6	UY3	UY3	WO3	WO3	WO6	WO6
Sampling date	8/01/2014	8/01/2014	28/01/2014	28/01/2014	12/02/2014	12/02/2014	25/02/2014	25/02/2014	12/03/2014	12/03/2014	27/03/2014	27/03/2014	9/04/2014	9/04/2014	20/05/2014	20/05/2014	5/06/2014	5/06/2014	1/07/2014	1/07/2014	21/07/2014	21/07/2014
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)	(per ml)	(µm^3)
Blue greens (Cyanophyceae)																						
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	13.9	1614	10.2	1177	11.4	1318	1.2	140	10.6	1234	4.0	461	0.6	72	0.0	0	0.2	26	10.9	1260	0.2	17
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.5	192	0.0	0	0.0	0	0.0	0	0.4	148	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf																						
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.4	7	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.5	23
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)			0	0																		
Actinastrum hantschii	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	23	983	6	270	20	860	9	393	22	934	16	663	19	811	7	295	11	467	22	934	40	1695
Stichococcus contortus	5	84	0	0	5	84	2	42	0	0	2	42	0	0	0	0	9	168	23	421	16	295
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0.0	4415	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	4	228	6	380	0	0	4	228	0	0	0	0	1	76	0	0	1	76	1	76	0	0
Dictyosphaerium	0	0	10	547	5	257	19	1030	38	2091	0	0	0	0	0	0	12	676	26	1448	25	1351
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	2	246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	246	2	246	8	799
Eudorina elegans	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	5	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	5	665	4	581	6	914	4	498	5	665	4	581	9	1329	2	332	8	1080	9	1246	9	1329
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	4	213	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	7	0	5	0	5	0	2	0	0	0	0	0	0	0	0	0	16	0	7	0	0	0
Tetraedon gracile	1	64	1	64	1	129	1	64	1	64	1	64	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	5	300	0	0	3	180	0	0	0	0	6	360	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
unidentified Colonial green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)			0	0																		
Asterionella formosa	5	1474	9	2621	5	1474	9	2457	15	4259	12	3276	11	2948	6	1638	42	11630	23	6552	43	12121
Aulacoseira granulata	2	725	16	5078	9	2902	14	4352	1	363	4	1088	2	725	4	1269	7	2176	12	3627	7	2176
Aulacoseira granulata var. *angustissima*	6	1521	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	8213	0	0	6	1673
Attheya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	351	0	0
Cocconeis	0	0	0	0	0	0	1	306	0	0	0	0	1	306	1	612	0	0	0	0	0	0
Cyclotella stelligera	2	281	4	562	3	468	1	187	4	562	4	655	7	1123	4	562	15	2434	11	1778	7	1123
Fragilaria crotonensis	25	9005	16	5655	11	3770	35	12356	97	34765	27	9843	82	29320	3	1047	27	9843	33	11938	25	8796
Fragilaria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	3560	0	0	0	0	0	0
Nitzschia sp.	2	684	0	0	3	1141	0	0	0	0	0	0	0	0	0	0	6	2510	1	456	2	913
Synedra sp.	0	0	1	461	0	0	1	230	1	230	1	461	1	461	1	230	1	230	0	0	1	461
Amphora sp.	0	0	0	0	0	0	1	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	1	64	0	0	1	64	0	0	1	129	0	0	0	0	3	322	2	193	1	129	2	193
Desmids (Mesotaeniaceae, Desmidiaceae)			0	0																		
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	350	4	2453	0	0	0	0
Closterium acutum var. *variable*	2	662	3	1103	1	441	2	662	1	221	3	1103	3	1103	0	0	0	0	5	1764	2	882
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)			0	0																		
Dinobryon sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	207	0	0
Cryptomonas sp.	0	0	0	0	0	0	1	168	0	0	0	0	1	84	0	0	1	168	1	84	1	84
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	161
Dinoflagellates (Dinophyceae)			0	0																		
Ceratium hirundinella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1287	0	0	0	0	1	644
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm			0	0																		
Flagellates < 5µm/unicells	16	553	15	532	12	430	15	532	16	553	18	614	12	410	20	717	20	717	33	1167	43	1495

Lake Taupo phytoplankton enumeration (10-m tube) 2012-13

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	NA1	NA1	NA4	NA4	OH1	OH1	PQ1	PQ1	QL1	QL1	RW1	RW1	RW4	RW4	SY1	SY1	SY4	SY4	VK1	VK1
Sampling date	1/08/2012	1/08/2012	17/08/2012	17/08/2012	29/08/2012	29/08/2012	20/09/2012	20/09/2012	4/10/2012	4/10/2012	8/11/2012	8/11/2012	22/11/2012	22/11/2012	6/12/2012	6/12/2012	19/12/2012	19/12/2012	23/01/2013	23/01/2013
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																				
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.0	0	0.0	0	10.2	1183	1.8	206	21.2	2463	31.9	3698	66.2	7679	34.9	4044	2.1	238	1.5	177
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.2	3	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf	4.4	40	4.2	38	4.4	40	0.0	0	0.0	0					0.0	0	0.0	0	0.0	0
Microcystis sp.	6.5	137	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.4	7	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.						0	0.0	0	0.0	0	0.0	0	0.2	15	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																				
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	88	3681	22	909	120	5022	114	4794	0	0	0	0	6	273	12	500	12	491	15	639
Stichococcus contortus	30	536	6	117	0	0	18	331	0	0	0	0	0	0	0	0	0	0	0	0
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	29295	0.0	6376	0.0	0	0.0	0	0.0	0	0.0	5775
Chlamydomonas sp.	1	227	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	5	268	0	0	0	0	32	1785	0	0	0	0	0	0	0	0	6	354	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	0	0	3	341	0	0	2	227	0	0	0	0	0	0	1	114	4	430	4	369
Eudorina elegans	0	0	0	4	0	10	0	20	0	72	0	26	0	0	0	0	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Oocytsis sp.	6	922	13	1844	0	0	3	461	2	307	3	461	9	1229	8	1152	8	1080	13	1828
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	384	0	0
Scenedesmus sp.	2	84	0	0	0	0	4	225	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	1	60	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	1	32	4	252	0	25	0	0	0	0	51	3089	146	8775
Westella botryoides	0	10	0	0	0	0	0	0	0	0	0	5	13	0	0	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	199	0	0
Diatoms (Bacillariophyceae)																				
Asterionella formosa	65	18329	133	37264	50	13936	162	45293	178	49837	34	9543	23	6514	21	5756	12	3276	0	0
Aulacoseira granulata	17	5367	4	1342	2	503	49	15262	18	5534	12	3857	10	3186	0	0	0	0	0	0
Aulacoseira granulata var. *angustissima*	2	563	27	7033	45	11675	24	6330	148	38541	36	9424	16	4220	10	2532	0	0	0	0
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	1	283	0	0	0	0	0	0	0	0	0	0	0	0
Cyclotella stelligera	4	692	2	346	2	260	6	952	4	692	3	519	2	346	1	173	1	94	0	0
Fragilaria crotonensis	62	22273	9	3293	0	0	0	0	0	0	0	0	2	775	3	1162	0	0	0	0
Fragilaria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia sp.	3	1055	0	0	1	211	2	633	0	0	0	0	2	633	1	422	1	228	0	0
Synedra sp.	0	0	0	0	0	0	1	426	0	0	0	0	0	0	0	0	0	0	0	0
Amphora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	2	238	0	0	0	0	4	476	0	0	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)									0	0							0	0		
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	1	204	1	469	0	0	0	0	0	0	0	0	1	204	0	0	0	0	0	0
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																				
Dinobryon sp.	0	0	1	64	0	0	22	1309	19	1117	27	1596	1	32	12	702	39	2278	53	3106
Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0	1	78	0	0	0	0	0	0	0	0
Synura sp.	0	0	1	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																				
Ceratium hirundinella	0	0	0	0	0	420	0	0	0	840	0	1260	0	420	0	0	0	630	0	0
Gymnodinium sp. 1	1	595	0	0	0	0	0	0	0	0	0	0	1	595	1	595	0	0	0	0
Gymnodinium sp. 2	0	0	0	200	0	0	0	0	0	3000	0	0	0	400	0	0	0	600	0	0
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1170	0	0
Flagellates 5μm																				
Flagellates < 5μm/unicells	17	606	161	5643	287	10054	76	2670	221	7744	132	4620	133	4639	106	3711	77	2682	184	6429

Sample code	WD1	WD1	WD4	WD4	XL1	XL1	XL4	XL4	ZB1	ZB1	ZB4	ZB4	BC1	BC1	BC4	BC4	DF1	DF1	DF4	DF4	FK1	FK1
Sampling date	7/02/2013	7/02/2013	21/02/2013	21/02/2013	6/03/2013	6/03/2013	20/03/2013	20/03/2013	4/04/2013	4/04/2013	22/04/2013	22/04/2013	7/05/2013	7/05/2013	23/05/2013	23/05/2013	6/06/2013	6/06/2013	19/06/2013	19/06/2013	22/07/2013	22/07/2013
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																						
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	90.8	10528	7.1	824	4.7	539	23.7	2752	535.0	62060	20.3	2359	58.0	6733	16.6	1928	8.0	933	15.5	1800	3.4	392
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.2	80	0.4	176	0.0	0	0.0	0	0.0	0	0.9	343	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.6	14	1.6	15
Heteroleibleinia sp.cf	0.0	0	0.0	0	0.0	0	0.0	0		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	2.8	59	0.0	0	1.5	32	0.0	0	0.4	8	0.0	0	8.6	181	1.2	25
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.2	5	0.7	14	0.0	0	1.4	30	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.4	7	0.0	0	0.6	12	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																						
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	0	0	0	0	3	123	0	0	2	98	6	246	20	841	18	762	27	1155	43	1795	17	704
Stichococcus contortus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	21	0	0	0	0	11	195
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	4620	0.0	0	0.0	0	0.0	0	0.0	0	0.0	74865	0.1	48825	0.0	7324	0.0	0	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	0	0	2	246	1	123	7	737	15	1597	5	553	2	227	3	307	0	0	7	738	2	170
Eudorina elegans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	20
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	26	3655	23	3240	6	914	2	249	5	665	5	665	9	1229	8	1080	15	2077	7	999	4	538
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	60	0	0
Volvox aureus	0	0	0	0	0	0	205	12285	0	0	0	0	59	3540	2	111	0	0	14	864	4	240
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	4	298	15	1243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																						
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	1	303	4	983	37	10483	25	7120	6	1818
Aulacoseira granulata	0	0	4	1269	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	5031	0	0
Aulacoseira granulata var. *angustissima*	11	2738	0	0	0	0	5	1217	0	0	0	0	2	563	1	152	15	3955	0	0	23	6048
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	0	0	0	0	1	283	0	0	0	0	2	849	0	0
Cyclotella stelligera	0	0	6	936	1	94	0	0	0	0	0	0	4	692	2	374	7	1123	3	433	4	606
Fragilaria crotonensis	26	9424	0	0	0	0	0	0	0	0	0	0	56	19949	105	37697	573	205241	103	36992	0	0
Fragilaria sp.	0	0	0	0	0	0	0	0	0	0	0	0	3	1162	0	0	0	0	0	0	0	0
Nitzschia sp.	1	228	0	0	1	456	0	0	0	0	1	456	12	4642	5	2053	2	684	4	1688	2	633
Synedra sp.	0	0	0	0	0	0	0	0	0	0	4	1383	0	0	0	0	0	0	5	2132	1	213
Amphora sp.	0	0	0	0	0	0	0	0	0	0	1	306	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	2	193	2	193	0	0	1	129	0	0	1	64	0	0	2	179	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)			0	0									0	0								
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	408	1	204
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)									0	0												
Dinobryon sp.	20	1208	44	2623	0	0	1	69	0	0	106	6282	6	351	4	207	0	0	5	287	0	0
Cryptomonas sp.	0	0	0	0	1	84	1	168	0	0	1	168	0	0	1	84	2	253	1	156	2	234
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																						
Ceratium hirundinella	0	0	0	210	0	210	0	0	0	42	0	21	0	1050	0	420	0	42	0	210	0	0
Gymnodinium sp. 1	0	0	4	3861	0	0	1	644	3	3218	0	0	0	0	1	1287	0	0	1	595	1	595
Gymnodinium sp. 2	0	600	0	1400	0	0	0	0	1	11700	0	0	0	800	0	200	0	120	0	0	0	0
Peridinium sp.	0	0	0	0	1	4680	11	42120	0	0	3	11700	0	0	0	0	0	0	2	8656	0	0
Gonyaulax sp.	1	1170	6	11700	0	0	0	0	13	25740	0	0	2	3246	2	3510	2	4680	0	0	0	0
Flagellates 5μm																						
Flagellates < 5μm/unicells	77	2703	142	4975	34	1188	41	1433	166	5815	30	1065	141	4942	252	8825	159	5569	24	833	15	530

Lake Taupo phytoplankton enumeration (50 m van Dorne) 2012-13

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	NA3	NA3	NA6	NA6	OH3	OH3	PQ3	PQ3	QL3	QL3	RW3	RW3	RW6	RW6	SY3	SY3	SY6	SY6	VK3	VK3
Sampling date	1/08/2012	1/08/2012	17/08/2012	17/08/2012	29/08/2012	29/08/2012	20/09/2012	20/09/2012	4/10/2012	4/10/2012	8/11/2012	8/11/2012	22/11/2012	22/11/2012	6/12/2012	6/12/2012	19/12/2012	19/12/2012	23/01/2013	23/01/2013
Species composition by class	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)
Blue greens (Cyanophyceae)																				
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	6.2	713	0.0	0	15.4	1784	22.8	2647	26.7	3094
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	2	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.3	128	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.4	12
Heteroleibleinia sp.cf	0.9	8	11.9	107	0.0	0	0.0	0	0.0	0					0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.7	6	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	6	0.0	0	1.3	25	0.0	0	0.0	0
Gloeocapsa sp.						0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																				
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	71	2973	66	2776	42	1769	87	3661	33	1400	1	49	11	442	12	491	16	688	37	1572
Stichococcus contortus	52	937	26	463	29	516	14	253	24	432	6	116	0	0	3	53	0	0	2	42
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	12751	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chlamydomonas sp.	1	246	0	0	0	0	0	0	1	123	1	123	0	0	0	0	0	0	0	0
Crucigeniella sp	5	304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	42	2317	0	0	2	97	27	1480	0	0	0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	2	246	0	0	0	0	0	0	0	0	0	0	7	737	1	123	0	0	0	0
Eudorina elegans	0	0	0	0	1	300	20	5242	9	2396	0	0	13	3444	0	0	0	0	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	5	748	9	1329	2	249	0	0	2	249	0	0	3	415	2	332	4	498	6	914
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	5	768	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	2	122	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	12	720	11	660	3	168	296	17760
Westella botryoides	0	0	0	0	0	0	0	0	12	799	0	0	11	0	4	228	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	298
Diatoms (Bacillariophyceae)																				
Asterionella formosa	111	30958	99	27846	68	19165	67	18673	144	40459	40	11138	24	6716	13	3604	2	655	15	4259
Aulacoseira granulata	19	5803	0	0	2	544	80	24845	81	25208	100	31011	32	10011	20	6166	19	5985	9	2720
Aulacoseira granulata var. *angustissima*	0	0	13	3498	35	9126	18	4563	165	42892	12	3042	5	1369	11	2738	2	608	0	0
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyclotella stelligera	2	374	10	1591	4	655	8	1310	8	1310	13	2059	9	1404	6	1030	2	281	1	187
Fragilaria crotonensis	37	13404	0	0	0	0	0	0	0	0	0	0	2	628	0	0	0	0	0	0
Fragilaria sp.	2	838	0	0	0	0	0	0	0	0	0	0	0	0	1	419	2	628	0	0
Nitzschia sp.	2	684	5	1825	1	228	1	456	2	913	0	0	2	684	1	228	2	684	2	684
Synedra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora sp.	4	1836	0	0	0	0	1	612	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	3	322	2	193	0	0	4	450	0	0	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)																	0	0		
Closterium aciculare	0	0	0	0	0	0	0	0	1	350	0	0	0	0	0	0	2	1051	0	0
Closterium acutum var. *variable*	1	221	1	441	1	221	1	221	0	0	1	441	0	0	2	662	0	0	1	221
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																				
Dinobryon sp.	19	1139	1	69	0	0	8	449	0	0	2	138	0	0	0	0	0	0	0	0
Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	84
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																				
Ceratium hirundinella	0	0	0	210	0	420	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	800	0	0	0	200	0	0	0	1400	0	1000	0	800	0	1200
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5μm																				
Flagellates < 5μm/unicells	67	2334	195	6839	215	7514	52	1822	197	6880	130	4545	125	4382	125	4361	194	6798	227	7944

Sample code	WD3	WD3	WD6	WD6	XL3	XL3	XL6	XL6	ZB3	ZB3	ZB6	ZB6	BC3	BC3	BC6	BC6	DF3	DF3	DF6	DF6	FK3	FK3
Sampling date	7/02/2013	7/02/2013	21/02/2013	21/02/2013	6/03/2013	6/03/2013	20/03/2013	20/03/2013	4/04/2013	4/04/2013	22/04/2013	22/04/2013	7/05/2013	7/05/2013	23/05/2013	23/05/2013	6/06/2013	6/06/2013	19/06/2013	19/06/2013	22/07/2013	22/07/2013
Species composition by class	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)	Cell (per ml)	Biovolume (μm³)
Blue greens (Cyanophyceae)																						
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	114.6	13294	77.4	8983	12.6	1464	13.6	1578	1.3	151	6.2	717	1.0	111	1.4	167	0.0	0	3.9	451	0.0	0
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.2	471	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.4	4	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.0	18
Heteroleibleinia sp.cf	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	7	0.0	0	0.0	0	0.0	0	0.8	16	0.4	7
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	5	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.7	14	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Gloeocapsa sp.	0.0	0	0.0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																						
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	1	49	5	197	8	344	2	74	10	418	9	393	11	442	9	369	5	221	60	2531	18	762
Stichococcus contortus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	95	7	126
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12751	0.0	0	0.0	0	0.0	0	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1229	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	1	123	0	0	1	61	6	676	0	0	0	0	0	0	0	0	1	123	1	123	0	0
Eudorina elegans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1647	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	8	1163	20	2907	6	831	3	415	8	1163	8	1080	1	166	4	498	1	123	2	332	6	914
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	2	132	0	0	0	0	0	0	12	720	0	0	0	0	7	420	6	360
Westella botryoides	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	2	199	0	0	0	0	0	0	0	0	0	0	2	149	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																						
Asterionella formosa	4	1147	1	164	5	1474	0	0	0	0	2	491	1	164	1	164	0	0	48	13432	12	3276
Aulacoseira granulata	29	9068	13	4171	0	0	0	0	5	1451	0	0	1	363	4	1269	0	0	15	4534	5	1451
Aulacoseira granulata var. *angustissima*	0	0	1	304	16	4259	5	1369	7	1825	0	0	3	761	0	0	7	1825	8	1977	22	5780
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	1	306	0	0	0	0	0	0	1	306	0	0	0	0	2	918	0	0
Cyclotella stelligera	2	281	5	749	5	749	0	0	1	187	1	187	2	281	35	5616	2	281	3	468	1	94
Fragilaria crotonensis	0	0	11	3770	9	3351	0	0	53	19058	4	1466	0	0	0	0	67	24084	69	24713	13	4607
Fragilaria sp.	0	0	0	0	0	0	0	0	5	1675	8	2723	0	0	12	4189	15	5445	0	0	0	0
Nitzschia sp.	1	228	0	0	1	456	1	228	0	0	0	0	0	0	1	456	2	913	4	1369	1	456
Synedra sp.	0	0	0	0	0	0	0	0	0	0	1	461	0	0	0	0	0	0	4	1613	1	230
Amphora sp.	0	0	1	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)			0	0									0	0								
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	1	221	1	221	1	221	0	0	1	221	2	662	1	441	1	221	0	0	1	441	1	221
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)									0	0												
Dinobryon sp.	0	0	0	0	2	138	15	897	0	0	0	0	0	0	0	0	0	0	17	1001	0	0
Cryptomonas sp.	1	84	0	0	0	0	0	0	0	0	1	168	0	0	0	0	0	0	1	168	1	168
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																						
Ceratium hirundinella	0	0	0	420	0	210	0	210	0	630	0	0	0	840	0	840	0	1050	0	210	0	210
Gymnodinium sp. 1	0	0	0	0	0	0	1	1287	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 2	0	1600	0	2000	0	0	0	0	0	800	0	0	0	0	0	400	0	120	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	9	35100	0	0	0	0	0	0	0	0	0	0	2	7020	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	234	0	0	0	0	0	0	0	0
Flagellates 5μm																						
Flagellates < 5μm/unicells	84	2948	120	4197	20	717	33	1147	66	2293	15	532	7	246	71	2498	22	778	27	962	9	328

Lake Taupo phytoplankton enumeration (10-m tube) 2011-12

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	XK1	XK1	XY1	XY1	XY4	XY4	ZG1	ZG1	ZY1	ZY1	ZY4	ZY4	BC1	BC1	BC4	BC4	CL1	CL1
Sampling date	24/08/2011	24/08/2011	7/09/2011	7/09/2011	28/09/2011	28/09/2011	25/10/2011	25/10/2011	8/11/2011	8/11/2011	22/11/2011	22/11/2011	8/12/2011	8/12/2011	22/12/2011	22/12/2011	12/01/2012	12/01/2012
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																		
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.0	0	0.0	0	0.6	74	2.1	238	0.9	99	0.8	97	5.2	606	3.1	361	10.0	1158
Leptolyngbya sp.	0.0	0	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.4	567
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.8	278	0.0	0	1.8	278	0.0	0
Chroococcus sp.	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.7	6	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	2.2	46	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Snowella sp.	0.0	0	1.0	24	0.0	0	0.0	0	0.0	0	1.7	42	0.0	0	1.7	42	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)							0.0	0	0.0	0			0.0	0				
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	20	841	12	500	13	545	10	418	16	688	0	0	2	74	0	0	5	221
Stichococcus contortus	4	78	0	0	6	117	0	0	0	0	0	0	0	0	0	0	0	0
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0	0.0	0	0	0	0.0	2861	0.0	0	0	0	0.0	47554	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	0	0	0	0	34	1845	10	547	0	0	14	774	6	322	8	446	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	5	568	3	341	3	341	1	123	4	369	2	227	0	0	2	227	0	0
Eudorina elegans	28	7063	0	0	19	4847	1	300	0	0	0	0	0	0	0	31	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	9	1229	12	1767	6	845	1	166	0	0	2	307	2	332	14	1997	1	166
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	1	177	0	0	0	0	0	0	4	710	0	0	4	710	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)							0	0	0	0			0	0				
Asterionella formosa	365	102098	148	41506	37	10452	27	7535	4	983	12	3333	9	2621	9	2424	1	410
Aulacoseira granulata	0	0	31	9559	32	9895	4	1088	2	544	0	0	7	2176	0	0	0	0
Aulacoseira granulata var. *angustissima*	47	12237	49	12659	86	22365	60	15514	0	0	4	1125	0	0	1	281	0	0
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	0	0	0	0	1	566	0	0	0	0	0	0	0	0	0	0	0	0
Cyclotella stelligera	6	952	5	779	11	1818	5	842	4	562	8	1298	4	562	8	1212	2	281
Fragilaria crotonensis	120	42803	26	9297	6	2130	62	22200	49	17592	182	65076	127	45446	117	42028	57	20315
Fragilaria sp.											0	0			0	0		
Nitzschia sp.	3	1266	4	1688	3	1266	1	456	4	1597	0	0	4	1369	0	0	2	913
Synedra sp.	1	213	4	1492	1	213	0	0	0	0	0	0	0	0	0	0	0	0
Amphora sp.	1	566	0	0	1	283	0	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum											0	0			0	0		
Small unknown diatom sp.	3	298	0	0	3	357	0	0	0	0	0	0	0	0	1	119	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)							0	0	0	0			0	0				
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	1	324	0	0	1	324	0	0
Closterium acutum var. *variable*	2	612	2	816	1	408	0	0	0	0	0	0	0	0	0	0	0	0
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	0	0	0	0	0	0	0	0	1	80	0	0	0	0	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)							0	0	0	0			0	0				
Dinobryon sp.	4	255	0	0	0	0	143	8422	17	1001	2	128	171	10113	88	5203	2	138
Cryptomonas sp.	0	0	0	0	1	156	0	0	0	0	0	0	0	0	0	0	0	0
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	523	0	0
Dinoflagellates (Dinophyceae)			0	0			0	0	0	0	0	0	0	0				
Ceratium hirundinella	0	0	0	0	1	11361	1	12285	1	12285	0	4620	1	24570	0	5250	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	4	3861	4	3861	0	0	12	13514	1	595	7	7722
Gymnodinium sp. 2	0	0	0	0	0	0	1	11700	0	0	0	1600	1	23400	0	2200	3	58500
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5μm							0	0	0	0			0	0				
Flagellates < 5μm/unicells	18	625	121	4241	17	587	162	5672	121	4218	103	3598	76	2662	159	5567	77	2682

Sample code	CL4	CL4	ED1	ED1	FH1	FH1	HD1	HD1	JA1	JA1	JA4	JA4	KW1	KW1	LT1	LT1	LT4	LT4	LT6	LT6	NA1	NA1
Sampling date	26/01/2012	26/01/2012	16/02/2012	16/02/2012	7/03/2012	7/03/2012	10/04/2012	10/04/2012	7/05/2012	7/05/2012	31/05/2012	31/05/2012	14/06/2012	14/06/2012	3/07/2012	3/07/2012	18/07/2012	18/07/2012	18/07/2012	18/07/2012	1/08/2012	1/08/2012
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																						
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	3.0	347	17.5	2032	5.5	643	25.2	2923	45.9	5329	6.1	703	10.4	1211	0.9	100	0.0	0	0.0	0	0.0	0
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	1.8	698	0.4	168	0.1	44	0.0	0	9.0	3575	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Heteroleibleinia sp.cf	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	4.4	40
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	6.5	137
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.6	13	0.0	0	0.0	0	0.0	0	0.0	0	10.2	213	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	3	0.3	3	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.4	7
Greens (Chlorophyceae)			0.0	0																		
Actinastrum hantschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	61	2555	44	1867	50	2090	12	500	32	1341	134	5612	34	1431	65	2727	19	818	30	1278	88	3681
Stichococcus contortus	18	316	0	0	0	0	0	0	0	0	22	390	5	97	0	0	0	0	0	0	30	536
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	2	71	0	0	4	143	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	0	0	0	0.0	0	0.0	340310	0.0	14648	0.0	0	0.0	0	0.0	2788	0.0	0	0.0	2142	0.0	0
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	227
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	11	579	35	1931	17	952	14	774	57	3154	19	1071	6	357	12	655	3	179	6	354	5	268
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	3	307	0	31	0	0	0	0	0	0	1	114	0	0	3	341	1	114	1	61	0	0
Eudorina elegans	0	0	0	0	0	10	0	0	0	0	0	61	0	0	0	49	0	0	2	449	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	1	208	0	0	5	691	4	615	2	307	2	307	6	845	6	845	8	1076	16	2243	6	922
Planktosphaeria gelatinosa	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	0	0	0	0	0	0	2	113	0	0	0	0	1	28	0	0	2	84
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	0	0	0	1	76	0	10
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)			0	0																		
Asterionella formosa	0	0	3	819	23	6514	4	1060	4	1212	23	6514	8	2121	30	8331	32	9089	35	9664	65	18329
Aulacoseira granulata	0	0	2	635	1	335	0	0	0	0	0	0	4	1174	9	2851	0	0	6	1814	17	5367
Aulacoseira granulata var. *angustissima*	0	0	0	0	2	422	12	3095	1	141	7	1829	2	563	6	1688	9	2251	8	2129	2	563
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	2	1224	0	0	0	0	0	0	0	0	2	849	0	0	1	566	0	0	0	0	0	0
Cyclotella stelligera	2	281	1	140	0	0	2	260	1	173	1	87	1	173	2	346	0	0	0	0	4	692
Fragilaria crotonensis	171	61363	129	46075	78	27890	129	46095	64	23048	22	7941	59	21111	30	10652	23	8134	82	29530	62	22273
Fragilaria sp.					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia sp.	1	456	5	1825	8	2954	5	2110	7	2743	7	2743	1	422	3	1266	1	211	1	456	3	1055
Synedra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora sp.	2	1224	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	283	0	0	0	0
Eunotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	6	708	0	0	3	298	0	0	0	0	4	417	0	0	1	60	1	60	0	0	2	238
Desmids (Mesotaeniaceae, Desmidiaceae)			0	0	0	0																
Closterium aciculare	0	0	0	0	0	0	1	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	0	0	0	0	1	204	0	0	0	102	1	204	1	204	2	816	2	612	1	441	1	204
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	1	160	0	40	0	0	0	0	0	6	0	3	0	0	0	3	0	11	0	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0
Staurodesmus unicorns var. *gracilis*	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	20	0	2000	0	0
Chrysophtya (Chrysophyceae)			0	0																		
Dinobryon sp.	28	1657	5	293	10	606	2	96	14	798	30	1756	2	128	7	415	0	0	0	0	0	0
Cryptomonas sp.	0	0	0	0	0	0	0	0	3	390	1	156	0	0	0	0	0	0	0	0	0	0
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)			0	0																		
Ceratium hirundinella	0	0	0	0	0	630	0	63	0	0	0	0	0	630	0	0	0	420	0	210	0	0
Gymnodinium sp. 1	0	0	32	34749	1	1190	1	595	1	595	0	0	1	595	1	1190	0	0	0	0	1	595
Gymnodinium sp. 2	0	0	1	23400	0	400	0	0	0	2400	0	0	0	1000	0	0	0	0	0	0	0	0
Peridinium sp.	2	9360	2	9360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	4	8656	4	8656	4	7574	0	0	1	2164	0	0	0	0	0	0	0	0
Flagellates 5μm			0	0																		
Flagellates < 5μm/unicells	94	3296	90	3153	85	2973	78	2746	45	1591	30	1060	127	4431	52	1818	162	5662	163	5692	17	606

Lake Taupo phytoplankton enumeration (50 m van Dorne) 2011-12

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	XK3	XK3	XY3	XY3	XY6	XY6	ZG3	ZG3	ZY3	ZY3	ZY6	ZY6	BC3	BC3	BC6	BC6	CL3	CL3	CL6	CL6	ED3	ED3	FH3	FH3	HD3	HD3	JA3	JA3	JA6	JA6	KW3	KW3	LT3	LT3	LT6	LT6	NA3	NA3
Sampling date	24/08/2011	24/08/2011	7/09/2011	7/09/2011	28/09/2011	28/09/2011	25/10/2011	25/10/2011	8/11/2011	8/11/2011	22/11/2011	22/11/2011	8/12/2011	8/12/2011	22/12/2011	22/12/2011	12/01/2012	12/01/2012	26/01/2012	26/01/2012	16/02/2012	16/02/2012	7/03/2012	7/03/2012	10/04/2012	10/04/2012	7/05/2012	7/05/2012	31/05/2012	31/05/2012	14/06/2012	14/06/2012	3/07/2012	3/07/2012	18/07/2012	18/07/2012	1/08/2012	1/08/2012
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																																						
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.2	24	0.0	0	0.0	0	0.0	0	10.4	1204	0.1	12	0.0	0	0.0	0	6.1	709	13.5	1569	2.1	247	14.2	1645	2.7	318	0.0	0	0.4	49	0.4	42	0.0	0	0.0	0	0.0	0
***Leptolyngbya* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Anabaena planktonica*Dolichospermum planctonicum**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.9	363	2.3	906	0.0	0	0.0	0	1.3	527	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Anabaena* sp./ *Dolichospermum* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	22	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.2	50	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Chroococcus* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Aphanocapsa* sp.**	0.6	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	4.0	36	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Heteroleibleinia* sp.cf**	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.9	8
***Microcystis* sp.**	0.8	16	1.7	35	1.0	20	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Snowella* sp.**	0.0	0	0.8	21	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.6	65	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	6	0.0	0	0.0	0	0.0	0
***Phormidium* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Aphanothece* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	3	0.0	0
***Aphanizomenon* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Pseudanabaena* sp.**	0.0	0	0.0	0	0.2	3	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	5	0.3	5	0.0	0	0.0	0	0.2	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																																						
Actinastrum hantzschii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium* sp. / *Ankistrodesmus falcatus	70	2948	2	98	110	4619	34	1425	26	1081	11	442	9	393	3	123	16	688	102	4300	41	1720	42	1769	11	467	32	1351	16	663	74	3096	70	2948	30	1278	71	2973
Stichococcus contortus	19	337	0	0	44	790	38	684	16	295	0	0	11	190	0	0	32	569	88	1580	60	1074	0	0	0	0	11	190	16	284	1	21	0	0	0	0	52	937
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	77	0	0	0	0	0	0	0	0	0	0	0	0	22	734	0	0	0	0
Botryococcus braunii (colonies)	0.0	433	0.0	0	0.0	0	0	0	0	0	0.0	0	0.0	19668	0.0	13471	0.0	63155	0.0	0	0	0	0.0	0	0.0	41063	0.0	0	0.0	0	0.0	1352426	0.0	0	0.0	2142	0.0	0
***Chlamydomonas* sp.**	0	0	0	0	2	491	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	246
***Crucigeniella* sp**	0	0	2	152	0	0	0	0	0	0	2	114	0	0	0	0	4	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	304
***Dictyosphaerium* sp.**	29	1577	0	0	7	386	58	3185	5	257	0	27	26	1416	0	18	0	0	22	1223	168	9266	0	0	7	386	0	0	13	740	31	1705	26	1448	6	354	42	2317
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa	11	1106	0	0	0	0	2	246	0	0	1	123	0	0	0	0	1	123	6	676	0	0	1	123	4	369	1	123	0	0	8	799	0	0	1	61	2	246
Eudorina elegans	21	5391	0	0	11	2845	18	4493	0	0	9	2246	0	0	0	0	0	0	16	4193	7	1797	0	0	0	0	0	0	0	0	7	1797	15	3894	2	449	0	0
***Lagerheimia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Oocystis* sp.**	6	831	6	831	3	415	0	0	0	0	10	1412	2	332	9	1246	0	0	13	1828	9	1329	1	83	4	498	4	581	0	0	22	3157	5	748	16	2243	5	748
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	2	384	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Scenedesmus* sp.**	2	122	0	0	0	0	0	0	0	0	7	365	0	0	0	0	0	0	0	0	9	487	0	0	0	0	0	0	1	61	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	386	0	0	0	0	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	4	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	76	0	0
***Apiocystis* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Paulschulzia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	298	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																																						
Asterionella formosa	420	117608	170	47502	44	12449	31	8681	11	2948	18	4914	3	819	2	491	25	6880	26	7371	19	5242	1	164	8	2293	4	983	7	1966	16	4423	44	12285	35	9664	111	30958
Aulacoseira granulata	22	6710	35	10881	50	15596	46	14145	23	7073	0	0	23	7254	0	0	11	3446	17	5259	3	907	1	363	1	363	0	0	0	0	2	725	0	0	6	1814	19	5803
Aulacoseira granulata* var. *angustissima	76	19773	82	21446	111	28747	52	13537	25	6388	26	6845	0	0	9	2434	0	0	4	1065	0	0	6	1673	5	1217	7	1901	12	3042	3	761	4	913	8	2129	0	0
***Aulacoseria* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	4	1836	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	612	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	306	0	0	0	0
Cyclotella stelligera	9	1404	7	1123	16	2527	19	3089	8	1217	4	562	2	374	2	281	4	562	4	655	0	47	1	187	0	0	0	0	0	0	1	94	2	374	0	0	2	374
Fragilaria crotonensis	73	26179	64	22828	36	12985	101	36231	37	13194	40	14241	63	22409	47	16964	81	29111	84	29948	144	51520	53	18849	11	3770	5	1675	30	10681	39	14032	91	32462	82	29530	37	13404
***Fragilaria* sp.**											0	0			1	419							0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	838
***Nitzschia* sp.**	6	2282	1	228	11	4107	4	1369	2	684	1	228	1	228	1	456	6	2510	11	4335	7	2738	2	913	17	6616	8	3194	6	2282	4	1597	2	913	1	456	2	684
***Synedra* sp.**	2	691	0	0	1	461	0	0	0	0	0	0	1	230	0	0	0	0	1	230	0	0	0	0	0	0	0	0	1	230	0	0	0	0	0	0	0	0
***Amphora* sp.**	1	306	0	0	1	612	0	0	0	0	0	0	1	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1836
***Eunotia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum											0	0			0	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	2	257	0	0	4	386	3	322	0	0	0	0	9	965	0	0	0	0	2	257	0	0	6	708	0	0	0	0	2	257	0	0	2	193	0	0	3	322
Desmids (Mesotaeniaceae, Desmidiaceae)							0	0	0	0			0	0							0	0	0	0														
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	1	350	0	0	0	0	0	0	0	0	0	0	0	0	1	701	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum* var. *variable	1	441	1	221	2	882	1	441	1	221	1	221	2	662	0	0	0	0	4	1544	0	0	0	0	0	0	2	662	1	441	1	221	2	662	1	441	1	221
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Mougeotia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Spirogyra* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Staurastrum* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicornis* var. *gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2000	0	0
Chrysophtya (Chrysophyceae)							0	0	0	0			0	0							0	0																
***Dinobryon* sp.**	16	932	2	104	33	1933	53	3141	0	0	0	0	0	0	13	759	0	0	0	0	6	345	31	1829	7	414	1	69	0	0	3	173	12	725	0	0	19	1139
***Cryptomonas* sp.**	0	0	1	84	0	0	0	0	0	0	0	0	1	168	0	0	1	168	2	253	1	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Synura* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																																						
Ceratium hirundinella	1	12285	0	0	1	12285	0	0	0	0	0	429	0	0	0	840	0	0	1	12285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210	0	0
***Gymnodinium* sp. 1**	1	644	0	0	0	0	1	644	2	1931	0	0	1	1287	0	0	0	0	0	0	0	0	2	1931	0	0	0	0	0	0	0	0	1	1287	0	0	0	0
***Gymnodinium* sp. 2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1200	0	400	0	1200	0	0	0	3600	0	0	0	0	0	0
***Peridinium* sp.**	0	0	0	0	1	2340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2340	0	0	0	0
***Gonyaulax* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	25740	0	0	0	0	0	0	1	1170	0	0	0	0	0	0
Flagellates 5µm							0	0	0	0			0	0							0	0																
Flagellates < 5µm/unicells	64	2232	78	2744	53	1863	137	4812	76	2662	38	1331	78	2744	56	1945	90	3153	58	2027	83	2907	129	4525	99	3481	66	2314	29	1024	184	6429	50	1761	163	5692	67	2334

Lake Taupo phytoplankton enumeration (10-m tube) 2010-11																																									
Cell counts and biovolume																																										
Cells per ml numbers may be affected by rounding																																									
Sample code	FY1	FY1	FY5	FY5	HQ1	HQ1	IV4	IV4	KC1	KC1	KS1	KS1	LE1	LE1	LV1	LV1	MJ1	MJ1	MJ4	MJ4	OP1	OP1	PL1	PL1	QN1	QN1	RK1	RK1	TQ1	TQ1	UI1	UI1	UX1	UX1	UT1	UT1	WU1	WU1			
Sampling date	10/08/2010	10/08/2010	24/08/2010	24/08/2010	13/09/2010	13/09/2010	26/10/2010	26/10/2010	10/11/2010	10/11/2010	25/11/2010	25/11/2010	8/12/2010	8/12/2010	21/12/2010	21/12/2010	11/01/2011	11/01/2011	27/01/2011	27/01/2011	17/02/2011	17/02/2011	1/03/2011	1/03/2011	15/03/2011	15/03/2011	13/04/2011	13/04/2011	10/05/2011	10/05/2011	31/05/2011	31/05/2011	22/06/2011	22/06/2011	5/07/2011	5/07/2011	9/08/2011	9/08/2011			
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume			
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)			
Blue greens (Cyanophyceae)																																									
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	0.8	87	0.8	90	17.1	1980	27.5	3195	44.0	5106	11.2	1299	0.9	100	3.4	398	0.8	94	9.6	1118	5.7	660	21.4	2482	12.2	1411	34.7	4021	26.5	3072	8.5	991	0.1	14	0.2	23	0.0	0			
***Leptolyngbya* sp.**	1.3	14	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.7	7	1.2	13	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.7	1057	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Anabaena* sp./ *Dolichospermum* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.1	99	0.0	0			
Anabaena circinalis / Dolichospermum circinalis	0.3	67	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.4	287	0.0	0	0.0	0			
***Chroococcus* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	2			
***Aphanocapsa* sp.**	1.0	9	0.0	0	0.5	5	0.9	8	0.6	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	3.6	32	0.0	0	0.0	0	0.0	0	16.4	148	3.4	31			
***Heteroleibleinia* sp.cf**	0.0	0	0.0	0	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			22.7	409	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Microcystis* sp.**	0.4	8	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.5	32	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.8	37			
***Snowella* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Phormidium* sp.**	0.0	0	0.0	0	0.4	9	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	6.6	139	0.0	0	0.5	11	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Aphanothece* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Aphanizomenon* sp.**	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			
***Pseudanabaena* sp.**	0.0	0	0.1	3	1.2	23	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.8	15	1.3	25	0.0	0	2.4	46	0.7	13	1.8	35	0.0	0	0.0	0	0.0	0	0.0	0	0.3	5			
Greens (Chlorophyceae)																																			0.0	0					
Actinastrum hantschii	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Monoraphidium* sp. / *Ankistrodesmus falcatus	72	3022	128	5385	121	5090	151	6339	215	9043	77	3249	117	4931	50	2113	58	2431	105	4431	6	250	6	273	10	432	0	0	0	0	0	263	11043	184	7725	63	2636			
Stichococcus contortus	29	526	32	584	60	1071	0	0	15	273	0	0	0	0	0	0	14	253	0	0	0	0	0	0	2	39	0	0	0	0	0	0	4	78	0	0	14	253			
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	107	2	71	0	0	0	0			
Botryococcus braunii (colonies)	0.0	6160	0.0	18946	0.0	0	0.0	0	0.0	3178	0.0	0	0.0	21852	0.0	0	0.0	0	0.0	0	0.0	0	0.0	36000	0.0	0	0.0	12008	0.0	4358	0.0	16933	0.0	0	0.0	2674	0.0	1462			
***Chlamydomonas* sp.**	2	341	3	568	5	1022	0	0	0	0	0	0	0	0	0	0	2	341	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Crucigeniella* sp**	3	211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Dictyosphaerium	9	506	0	0	33	1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	803	1	30	6	357			
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Elakotothrix gelatinosa	6	682	4	454	6	682	0	0	0	0	0	0	0	0	0	0	2	227	0	0	1	114	6	682	215	22552	2	227	0	0	0	0	2	227	2	227	13	1363			
Eudorina elegans	16	4155	6	1662	6	1662	0	92	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	18	0	36	0	31	0	20	0	0	15	3878			
***Lagerheimia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Oocystis* sp.**	3	384	6	845	6	922	5	768	6	922	1	154	0	0	3	461	5	691	0	0	14	1997	38	5378	43	6146	44	6223	15	2074	14	1997	5	768	13	1844	4	615			
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	355	0	0			
***Scenedesmus* sp.**	0	0	8	394	10	535	2	113	0	0	2	113	0	0	1	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Sphaerocystis schroeteri	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	2	238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Westella botryoides	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	8	0	0			
***Apiocystis* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Paulschulzia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Diatoms (Bacillariophyceae)																																			0	0					
Asterionella formosa	155	43323	268	74983	319	89222	136	38173	68	19086	19	5302	16	4544	8	2272	6	1818	1	303	1	151	0	0	0	0	2	606	21	5756	35	9695	23	6362	17	4847	117	32871			
Aulacoseira granulata	52	16268	81	24989	113	34884	144	44611	90	28008	34	10566	12	3690	4	1174	0	0	0	0	0	0	0	0	0	0	9	2683	0	0	0	0	0	0	3	839	4	1174			
Aulacoseira granulata* var. *angustissima	57	14910	13	3376	14	3517	16	4079	16	4220	0	0	1	141	0	0	6	1688	5	1407	0	70	2	422	4	985	0	0	16	4220	13	3376	8	2110	10	2532	28	7174			
***Aulacoseira* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0			
Cocconeis	5	2829	3	1415	2	849	0	0	2	849	0	0	2	1132	0	0	2	849	1	283	0	0	0	0	0	0	0	0	0	0	1	566	2	1132	0	0	1	566			
Cyclotella stelligera	11	1818	8	1212	5	779	10	1558	5	779	1	87	2	260	0	0	2	260	1	87	0	0	0	0	2	260	2	260	2	346	4	692	10	1645	4	606	2	260			
Fragilaria crotonensis	108	38542	122	43578	69	24597	2	775	25	8909	17	6004	0	0	1	194	14	5036	11	4067	3	968	0	0	0	0	9	3099	128	45902	36	12976	8	2711	4	1549	64	23048			
***Fragilaria* sp.**							12	4261	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	775	0	0	0	0	0	0	5	1743	0	0					
***Nitzschia* sp.**	3	1266	2	633	9	3587	12	4642	32	12659	6	2321	4	1477	3	1266	3	1055	1	211	1	211	1	211	2	844	1	422	1	422	2	844	2	844	3	1055	5	1899			
***Synedra* sp.**	6	2345	11	4263	12	4903	1	426	3	1066	0	0	0	0	0	0	1	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Amphora* sp.**	0	0	0	0	1	283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	283	0	0	0	0	1	566	0	0	0	0			
***Eunotia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Selenastrum minutum							4	476	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Small unknown diatom sp.	4	417	1	60	13	1428	2	179	3	357	0	0	2	179	1	60	2	179	1	119	0	0	0	0	0	0	0	0	2	179	0	0	5	536	14	1547	4	417			
Desmids (Mesotaeniaceae, Desmidiaceae)							0	0																											0	0					
Closterium aciculare	2	1296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	324	0	0			
Closterium acutum* var. *variable	0	0	3	1020	4	1428	1	204	1	204	0	0	1	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	204			
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Mougeotia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Spirogyra* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
***Staurastrum* sp.**	0	0	0	0	1	148	0	0	0	0	0	0	1	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	148	1	148	0	0	0	0	0	0			
Staurastrum tangaroaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Staurodesmus unicorns* var. *gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Chrysophtya (Chrysophyceae)																																			0	0					
***Dinobryon* sp.**	5	287	0	0	37	2202	49	2873	173	10214	18	1053	4	255	2	96	0	0	0	0	4	255	13	766	32	1883	23	1341	0	0	0	0	8	479	0	0	0	0			
***Cryptomonas* sp.**	3	390	4	545	3	390	0	0	0	0	0	0	1	78	0	0	0	0	0	0	0	0	0	0	1	78	0	0	0	0	1	156	0	0	0	0	0	0			
***Synura* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Dinoflagellates (Dinophyceae)																																			0	0					
Ceratium hirundinella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22722	0	3150	0	0			
***Gymnodinium* sp. 1**	0	0	0	0	4	4166	2	1785	0	0	0	0	0	0	1	1190	1	1190	2	2380	1	595	1	595	1	595	1	595	0	0	0	0	0	0	0	0	0	0			
***Gymnodinium* sp. 2**	0	0	0	0	0	0	1	10820	9	183940	0	0	0	0	1	10820	0	0	0	0	0	0	1	21640	0	0	0	0	0	0	0	0	0	0	0	800	0	0			
***Peridinium* sp.**	0	0	1	2164	0	0	0	0	0	0	0	0	7	28132	1	2164	4	17312	6	25968	0	0	0	0	1	2164	0	0	0	0	1	2164	0	0	0	0	0	0			
***Gonyaulax* sp.**	0	0	0	0	0	0	5	10820	0	0	24	47608	2	3246	4	8656	0	0	0	0	3	5410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Flagellates 5µm																																			0	0					
Flagellates < 5µm/unicells	70	2443	84	2954	111	3901	105	3692	108	3787	181	6343	104	3654	102	3560	70	2462	65	2291	22	776	48	1685	39	1382	29	1004	30	1060	29	1004	36	1269	87	3049	47	1628			

Lake Taupo phytoplankton enumeration (50 m van Dorne) 2010-11

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	FY3	FY3	FY7	FY7	HR1	HR1	IV6	IV6	KC3	KC3	KS3	KS3	LE3	LE3	LV3	LV3	MJ3	MJ3	MJ6	MJ6	OP3	OP3	PL3	PL3	QN3	QN3	RK3	RK3	TQ3	TQ3	UI3	UI3	UX3	UX3	UT3	UT3	WU3	WU3
Sampling date	10/08/2010	10/08/2010	24/08/2010	24/08/2010	13/09/2010	13/09/2010	26/10/2010	26/10/2010	10/11/2010	10/11/2010	25/11/2010	25/11/2010	8/12/2010	8/12/2010	21/12/2010	21/12/2010	11/01/2011	11/01/2011	27/01/2011	27/01/2011	17/02/2011	17/02/2011	1/03/2011	1/03/2011	15/03/2011	15/03/2011	13/04/2011	13/04/2011	10/05/2011	10/05/2011	31/05/2011	31/05/2011	22/06/2011	22/06/2011	5/07/2011	5/07/2011	9/08/2011	9/08/2011
Species composition by class	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume	Cell	Biovolume
	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)	(per ml)	(μm^3)
Blue greens (Cyanophyceae)																																						
Dolichospermum c.f. lemmermannii (formally; *Anabaena c.f. lemmermannii*)	0.9	101	0.5	53	0.0	0	15.5	1796	3.8	443	7.4	863	0.9	103	1.2	137	0.3	30	0.0	0	0.3	35	0.0	0	0.0	0	0.0	0	1.7	191	0.3	39	1.3	148	0.0	5	3.1	357
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena planktonica/Dolichospermum planctonicum	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	64	0.0	0	0.0	0	0.0	0	0.4	172	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena flos-aquae	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp./ *Dolichospermum* sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.5	41	0.0	0	2.0	178	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis / Dolichospermum circinalis	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	19	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	2.0	18	0.6	6	0.0	0	0.0	0	0.3	3	0.0	0	0.4	4	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	7.6	68	0.0	0
Heteroleibleinia sp.cf	0.0	0	0.0	0	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0			0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.2	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.7	36
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.6	14	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Phormidium sp.	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.0	0	0.2	3	0.0	0	0.1	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	5	0.0	0	0.0	0
Greens (Chlorophyceae)																																			0	0		
Actinastrum hantschii	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	60	2531	85	3587	100	4201	71	2998	74	3120	33	1400	107	4496	26	1106	97	4079	35	1450	7	295	55	2310	44	1867	30	1278	20	860	9	393	147	6167	159	6683	73	3071
Stichococcus contortus	37	674	67	1200	51	916	11	200	23	421	11	190	16	295	0	0	18	326	9	168	0	0	6	116	0	0	7	126	0	0	0	0	5	84	0	0	13	232
Kirchneriella contorta	0	0	0	0	2	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0.0	10258	0.0	812	0.0	3448	0.0	3000	0.0	0	0.0	1200	0.0	0	0.0	200	0.0	0	0.0	0	0.0	600	0.0	52500	0.0	0	0.0	3069	0.0	9535	0.0	0	0.0	365	0.0	215	0.0	4753
Chlamydomonas sp.	4	860	3	614	1	246	0	0	0	0	0	0	3	614	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucigeniella sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	15	837	0	0	9	483	3	139	0	23	0	25	0	13	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	1	44	0	0
Gloeocystis planctonica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	6	614	8	860	5	491	0	0	5	491	0	0	0	0	0	0	5	491	1	123	0	0	0	0	1	123	0	0	1	123	0	0	2	184	1	123	4	430
Eudorina elegans	13	3444	9	2246	0	0	0	0	16	4193	18	4643	12	2995	0	0	10	2546	33	8387	1	300	0	0	6	1647	5	1198	9	2246	9	2246	0	0	0	0	4	1048
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	9	1329	9	1246	12	1661	11	1495	4	498	1	166	1	166	2	332	8	1163	2	332	2	332	8	1080	4	498	5	748	15	2077	7	997	22	3074	8	1163	8	1080
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	384	0	0
Scenedesmus sp.	5	243	18	943	4	183	0	0	6	304	0	0	0	0	0	0	0	0	2	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	122	0	0
Sphaerocystis schroeteri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volvox aureus	0	0	80	4774	94	5616	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	608	0	0
Apiocystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																																			0	0		
Asterionella formosa	186	52088	309	86650	368	103030	163	45536	102	28665	50	14087	45	12613	82	22932	16	4586	7	1966	0	0	0	0	2	655	4	983	10	2785	8	2293	32	8845	23	6552	104	28993
Aulacoseira granulata	85	26477	90	27747	113	35182	336	104095	207	64017	122	37721	71	21943	43	13420	35	10700	8	2539	12	3627	0	0	17	5259	16	4896	15	4534	12	3627	12	3627	8	2358	7	2176
Aulacoseira granulata var. *angustissima*	21	5476	18	4715	20	5324	13	3498	25	6388	16	4107	12	3042	0	0	36	9430	10	2586	0	0	30	7909	15	3803	12	3194	16	4259	5	1217	22	5628	20	5171	35	9126
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Cocconeis	6	3366	4	1836	4	2142	0	0	1	612	2	918	1	306	0	0	3	1530	3	1530	0	0	0	0	0	0	1	306	0	0	1	612	0	0	0	0	2	1224
Cyclotella stelligera	13	2153	5	842	4	562	11	1685	8	1217	6	936	6	936	5	842	10	1591	2	374	3	468	1	187	2	374	5	842	5	842	3	468	6	1030	9	1404	4	562
Fragilaria crotonensis	124	44399	88	31624	27	9634	3	1047	18	6492	0	0	9	3351	1	209	0	0	6	2304	0	0	0	0	5	1675	0	0	108	38745	34	12147	0	0	33	11728	24	8587
Fragilaria sp.							3	1047	0	0	0	0	0	0	0	0	6	2094	0	0	0	0	0	0	19	6702	0	0	0	0	0	0	9	3141	0	0		
Nitzschia sp.	2	684	2	913	3	1141	19	7301	20	7757	8	2966	4	1597	0	114	2	913	1	456	1	228	0	0	1	456	1	456	2	684	1	228	4	1369	4	1369	6	2282
Synedra sp.	5	1844	9	3688	6	2535	0	0	5	1844	1	461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	691
Amphora sp.	1	306	0	0	0	0	0	0	0	0	1	612	1	612	0	0	0	0	0	0	1	306	0	0	0	0	0	0	0	0	1	306	1	612	0	0	1	306
Eunotia sp.	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Selenastrum minutum							2	257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Small unknown diatom sp.	1	129	2	257	6	708	0	0	2	257	0	0	1	64	0	0	2	193	2	193	1	129	0	0	0	0	2	193	2	257	0	0	2	257	11	1223	4	450
Desmids (Mesotaeniaceae, Desmidiaceae)							0	0																											0	0		
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	420	0	0
Closterium acutum var. *variable*	4	1323	3	1103	2	662	1	221	1	441	2	882	1	221	2	662	1	441	0	0	0	0	0	0	1	441	2	882	1	441	2	662	0	0	0	0	2	662
Cerasterias staurastroides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurastrum sp.	1	80	0	0	1	80	0	0	1	80	1	80	1	160	0	0	1	80	1	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0
Staurastrum tangaroaii	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staurodesmus unicorns var. *gracilis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)															0	0																			0	0		
Dinobryon sp.	14	828	0	0	25	1484	33	1933	0	0	6	345	0	0	0	0	0	0	4	207	0	0	3	173	1	69	7	414	0	0	0	0	18	1070	1	50	11	621
Cryptomonas sp.	2	253	3	421	3	421	1	168	0	0	0	0	1	84	0	0	1	84	2	253	0	0	0	0	0	0	2	253	1	168	1	168	0	0	0	0	0	0
Synura sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	81	0	0
Dinoflagellates (Dinophyceae)																																			0	0		
Ceratium hirundinella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12285	0	2100	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	644	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11700	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0
Peridinium sp.	1	2340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonyaulax sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm																																			0	0		
Flagellates < 5µm/unicells	56	1966	58	2027	85	2989	161	5631	59	2068	78	2744	37	1310	144	5057	56	1945	31	1085	9	328	118	4136	21	737	27	942	43	1515	23	799	34	1188	128	4484	47	1658

Lake Taupo phytoplankton enumeration (10-m tube) 2009-10

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	PH1	PH1	QJ1	QJ1	TT1	TT1	VA1	VA1	VA3	VA3	XF1	XF1	ZD1	ZD1	BX1	BX1	CU1	CU1	CU3	CU3
Sampling date	19/10/2009	19/10/2009	12/11/2009	12/11/2009	13/01/2010	13/01/2010	2/02/2010	2/02/2010	18/02/2010	18/02/2010	10/03/2010	10/03/2010	8/04/2010	8/04/2010	20/05/2010	20/05/2010	3/06/2010	3/06/2010	23/06/2010	23/06/2010
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																				
Dolichospermum c.f. lemmermannii (formerly; *Anabaena c.f. lemmermannii)*	0.0	0	77.4	6964	3.0	270	17.6	1582	182.5	21172	4.2	492	5.6	652	3.6	418	4.6	531	1.9	218
Dolichospermum planctonicum (formerly; *Anabaena planktonica)*	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	100	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum sp. (formerly; *Anabaena sp.)*	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Dolichospermum circinalis (formerly; *Anabaena circinalis)*	6.9	1429	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.8	11	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.6	13	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Leptolyngbya sp.	17.1	188	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.6	7	0.0	0	0.0	0
Snowella sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Pseudanabaena sp.	0.7	14	0.0	0	0.2	4	0.0	0	0.0	0	0.1	2	0.1	1	0.8	15	0.0	0	0.4	7
Phormidium sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.2	5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanocapsa sp.	4.0	36	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.0	18
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.3	6	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																				
Monoraphidium sp. / Ankistrodesmus falcatus	67	2818	32	1341	5	227	21	863	0	0	2	68	18	750	14	591	27	1113	11	477
Stichococcus contortus	11	204	0	0	0	0	9	166	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii (colonies)	0	0	0.002	3900	0.000	1950	0	0	0	0	0	0	0	0	0	0	0.0	3248	0.0	1570
Chlamydomonas sp.	2	341	0	0	1	227	0	0	0	0	0	0	0	0	2	454	0	0	3	568
Elakotothrix gelatinosa	4	454	3	341	1	114	4	454	0	0	1	114	0	0	15	1591	6	682	2	170
Eudorina elegans	8	2077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	9	1229	12	1690	22	3150	36	5070	45	6376	10	1383	34	4840	11	1613	11	1613	6	845
Tetraedon gracile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium	45	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	4	238	0	0
Crucigeniella sp	17	1090	18	1160	77	4993	48	3095	8	492	0	0	0	0	0	0	1	70	0	0
Kirchneriella contorta	10	321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	214	0	0
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Scenedesmus sp.	0	0	0	0	4	225	0	0	0	0	0	0	0	0	0	0	4	225	0	0
Volvox aureus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	19476	173	10387	498	29863
Diatoms (Bacillariophyceae)																				
Asterionella formosa	186	51958	31	8786	3	757	0	0	0	0	4	1060	0	0	4	1212	10	2727	9	2575
Aulacoseira granulata	21	6541	23	7044	6	2013	0	0	0	0	0	0	0	0	12	3857	9	2683	9	2851
Aulacoseira granulata var. angustissima	54	13925	4	1125	1	281	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aulacoseria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyclotella stelligera	10	1558	3	519	4	606	2	346	1	173	0	0	0	0	0	0	0	0	2	346
Fragilaria crotonensis	158	56554	121	43190	60	21498	98	35249	8	2905	15	5229	12	4261	22	7941	57	20336	135	48226
Nitzschia sp.	2	844	1	211	2	633	3	1266	0	0	1	211	2	844	7	2743	2	633	0	0
Synedra sp.	1	426	0	0	1	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora sp.	0	0	0	0	2	849	0	0	0	0	0	0	0	0	0	0	1	566	1	283
Cocconeis	1	566	0	0	0	0	2	849	0	0	6	3112	0	0	6	3395	8	3961	7	3678
Small unknown diatom sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	238	1	60	1	119
Desmids (Mesotaeniaceae, Desmidiaceae)									0	0										
Closterium aciculare	0	0	1	648	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. variable	1	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	204	1	408
Staurastrum sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	74	1	74	0	0
Chrysophtya (Chrysophyceae)																				
Dinobryon sp.	98	5809	289	17077	16	926	37	2202	29	1692	4	223	4	223	25	1468	0	0	6	383
Cryptomonas sp.	1	78	0	0	1	78	0	0	0	0	1	156	0	0	1	78	2	234	1	156
Dinoflagellates (Dinophyceae)																				
Ceratium hirundinella	0	0	0	0	1	11361	1	22722	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	0	0	0	0	0	0	0	0	1	1190	0	0	0	0	1	595	1	595	0	0
Gymnodinium sp. 2	0	0	0	0	2	40575	0	0	1	27050	0	0	0	5410	0	0	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	4	15148	0	0	3	12984	0	0	1	2164
Gonyaulax sp.	0	0	0	0	0	0	0	0	1	2164	0	0	3	6492	0	0	0	0	0	0
Flagellates 5µm																				
Flagellates < 5µm/unicells	153	5340	61	2140	43	1496	42	1477	85	2973	34	1193	33	1155	29	1004	23	795	36	1269

Lake Taupo phytoplankton enumeration (10-m tube) 2009-10 (continued)

Cell counts and biovolume	Cells per ml numbers may be affected by rounding			
Sample code	EX1	EX1	FY1	FY1
Sampling date	13/07/2010	13/07/2010	10/08/2010	10/08/2010
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)				
Dolichospermum c.f. lemmermannii (formerly; *Anabaena c.f. lemmermannii)*	0.2	22	0.8	87
Dolichospermum planctonicum (formerly; *Anabaena planktonica)*	0.0	0	0.0	0
Dolichospermum sp. (formerly; *Anabaena sp.)*	0.0	0	0.0	0
Dolichospermum circinalis (formerly; *Anabaena circinalis)*	0.0	0	0.3	67
Chroococcus sp.	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.4	8
Leptolyngbya sp.	0.0	0	1.3	14
Snowella sp.	0.0	0	0.0	0
Pseudanabaena sp.	0.5	9	0.0	0
Phormidium sp.	0.3	5	0.0	0
Aphanocapsa sp.	2.4	22	1.0	9
Aphanothece sp.	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0
Greens (Chlorophyceae)				
Monoraphidium sp. / Ankistrodesmus falcatus	68	2863	72	3022
Stichococcus contortus	0	0	29	526
Botryococcus braunii (colonies)	0.0	0	0.0	6160
Chlamydomonas sp.	0	0	2	341
Elakotothrix gelatinosa	6	625	6	682
Eudorina elegans	0	0	16	4155
Nephrocytium lunatum	0	0	0	0
Oocytsis sp.	4	538	3	384
Tetraedon gracile	0	0	0	0
Paulschulzia sp.	0	0	0	0
Dictyosphaerium	0	0	9	506
Crucigeniella sp	0	0	3	211
Kirchneriella contorta	0	0	0	0
Planktosphaeria gelatinosa	0	0	0	0
Scenedesmus sp.	2	113	0	0
Volvox aureus	87	5194	0	0
Diatoms (Bacillariophyceae)				
Asterionella formosa	39	11058	155	43323
Aulacoseira granulata	23	7044	52	16268
Aulacoseira granulata var. angustissima	0	0	57	14910
Aulacoseria sp.	17	0	0	0
Cyclotella stelligera	8	1212	11	1818
Fragilaria crotonensis	62	22273	108	38542
Nitzschia sp.	1	422	3	1266
Synedra sp.	1	213	6	2345
Amphora sp.	0	0	0	0
Cocconeis	4	2264	5	2829
	4	417	4	417
Desmids (Mesotaeniaceae, Desmidiaceae)				
Closterium aciculare	0	0	2	1296
Closterium acutum var. variable	0	0	0	0
Staurastrum sp.	0	0	0	0
Chrysophtya (Chrysophyceae)				
Dinobryon sp.	0	0	5	287
Cryptomonas sp.	4	623	3	390
Dinoflagellates (Dinophyceae)				
Ceratium hirundinella	0	0	0	0
Gymnodinium sp. 1	1	595	0	0
Gymnodinium sp. 2	0	0	0	0
Peridinium sp.	0	0	0	0
Gonyaulax sp.	0	0	0	0
Flagellates 5µm				
Flagellates < 5µm/unicells	59	2064	70	2443

Lake Taupo phytoplankton enumeration (10-m tube) 2008-09

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	RL4	RL4	SV2	SV2	UP4	UP4	XE2	XE2	XZ2	XZ2	XZ1	XZ1	AH2	AH2	AH4	AH4	DU1	DU1	EW2	EW2	GV2	GV2
Sampling date	16/09/2008	16/09/2008	14/10/2008	14/10/2008	26/11/2008	26/11/2008	22/12/2008	22/12/2008	13/01/2009	13/01/2009	28/01/2009	28/01/2009	11/02/2009	11/02/2009	25/02/2009	25/02/2009	26/03/2009	26/03/2009	15/04/2009	15/04/2009	7/05/2009	7/05/2009
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																						
Anabaena lemmermannii	0.0	0	0.0	0	46.5	1905	16.3	670	1.3	116	1.3	120	7.4	669	75.6	41	1.4	126	27.7	2495	13.6	1226
Pseudanabaena limnetica	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	2	0.0	0	4.4	83	0.0	0	0.0	0
Anabaena planktonica	0.0	0	0.0	0	0.0	0	0.0	0	0.8	299	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Anabaena circinalis	0.0	0	8.9	581	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	4
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0		
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.1	23
Snowella sp.																	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																						
Monoraphidium sp. / *Ankistrodesmus falcatus*	94	3956	4	172	4	172	16	688	53	2236	139	5848	56	2359	0	0	0	0	1	49	5	221
Stichococcus contortus	12	211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii	0.0	218	0.0	0	0.0	8877	0.0	127636	0.0	0	0.0	1908	0.0	0	0.0	543	0	0	0.0	4213	0.0	6058
Chlamydomonas sp.	0	0	1	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	4	369	0	0	0	0	0	0	5	491	12	1229	16	1720	18	1843	0	0	1	114	0	0
Eudorina elegans	0	0	0	0	0	0	0	0	6	1647	0	0	0	0	0	0	0	0	3	674	0	0
Nephrocytium lunatum	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocystis sp.	14	1994	8	1163	5	748	5	665	0	0	2	249	5	665	0	0	0	0	5	748	4	498
Tetraedon gracile	0	0	0	0	0	0	20	2252	9	1030	1	64	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	18	0	7	0	0	0	0	0	0	0	0	0	0	0
Dictyosphaerium sp.	0	0	0		0		0	0	0		0	0	0		0				5	0	0	0
Crucigeniella sp	0	0	0		7	456	4	228	2	152	0	0	0	0	0	0	0	0	30	1969	53	3422
Diatoms (Bacillariophyceae)																						
Asterionella formosa	64	18018	42	11794	29	8190	3	819	22	6061	35	9828	5	1310	1	328	4	1147	11	3112	19	5242
Aulacoseira granulata	15	4534	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2539	0	0	0	0
Aulacoseira granulata var. *angustissima*	0	0	1	304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aulacoseria sp.	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyclotella stelligera	15	2340	2	374	7	1123	0	0	1	187	1	187	1	187	0	0	1	187	1	187	4	655
Fragilaria crotonensis	37	13194	33	11728	99	35603	66	23456	70	25132	21	7539	48	17173	16	5864	2	838	21	7539	8	2723
Nitzschia sp.	0	0	0	0	0	0	4	1369	0	0	4	1597	2	913	2	913	0	0	0	0	0	0
Synedra sp.	1	230	0	0	0	0	2	691	0	0	0	0	0	0	0	0	1	230	0	0	0	0
Amphora sp.	0	0	0	0	0	0	1	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis	1	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Desmids (Mesotaeniaceae, Desmidiaceae)																						
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closterium acutum var. *variable*	1	441	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																						
Dinobryon sp.	0	0	53	3106	313	18466	23	1381	0	0	2	104	38	2243	53	3141	0	0	11	621	13	794
Cryptomonas sp.	0	0	0	0	1	168	0	0	0	0	0	0	1	84	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																						
Ceratium hirundinella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gymnodinium sp. 1	0	0	0	0	1	205	1	205	1	205	4	4505	4	4505	3	3218	0	0	1	1287	1	644
Gymnodinium sp. 2	0	0	0	0	1	14625	0	0	0	0	0	0	0	0	0	0	0	150	0	50	0	25
Peridinium sp.	0	0	0	0	0	0	0	0	0	0	2	4680	1	2340	0	0	0	0	1	2340	0	0
Gonyaulax sp.																	1	1170	1	1170	0	0
Flagellates 5µm																						
Flagellates < 5µm/unicells	113	3972	68	2375	78	2723	249	8722	182	6368	57	2007	51	1781	83	2907	37	1290	51	1781	145	5078

Lake Taupo phytoplankton enumeration (10-m tube) 2008-09 continued

Sample code	GV4	GV4	JO1	JO1	KI1	KI1	NEW NAMES INTRODUCED	LT1	LT1	ND1	ND1
Sampling date	27/05/2009	27/05/2009	18/06/2009	18/06/2009	6/07/2009	6/07/2009	August 2009	13/08/2009	13/08/2009	7/09/2009	7/09/2009
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)		Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)							**Blue greens (Cyanophyceae)**				
Anabaena lemmermannii	9.4	849	5.8	41	0.3	28	*Dolichospermum c.f. lemmermannii* (formerly; *Anabaena c.f. lemmermannii)*	0.1	10	0.1	11
Pseudanabaena limnetica	0.0	0	0.0	0	1.0	19	*Pseudanabaena sp.*	0.0	0	0.0	0
Anabaena planktonica	0.2	88	0.0	0	0.0	0	*Dolichospermum planctonicum* (formerly; *Anabaena planktonica)*	0.0	0	0.0	0
Anabaena sp.	2.1	188	0.3	23	0.5	46	*Dolichospermum sp.* (formerly; *Anabaena sp.)*	0.0	0	0.0	0
Anabaena circinalis	0.0	0	0.0	0	0.0	0	*Dolichospermum circinalis* (formerly; *Anabaena circinalis)*	0.0	0	0.0	0
Chroococcus sp.	0.1	1	0.0	0	0.0	0	*Chroococcus sp.*	0.2	2	0.8	11
Microcystis sp.	0.0	0	0.0	0	0.0	0	*Microcystis sp.*	0.0	0	2.5	53
Leptolyngbya sp.	0.6	6	0.1	2	0.0	0	*Leptolyngbya sp.*	0.0	0	120.0	1320
Snowella sp.	0.1	3	0.0	0	0.0	0	*Snowella sp.*	3.3	83	222.9	5572
Greens (Chlorophyceae)							**Greens (Chlorophyceae)**			0.0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	14	590	42	1744	42	1750	*Monoraphidium sp. / Ankistrodesmus falcatus*	24	1022	225	9459
Stichococcus contortus	0	0	3	53	0	0	*Stichococcus contortus*	19	351	63	1141
Botryococcus braunii	0.0	15954	0.0	14315	0.0	30946	*Botryococcus braunii (colonies)*	0.0	0	0.0	205716
Chlamydomonas sp.	0	0	0	0	0	0	*Chlamydomonas sp.*	0	0	0	0
Elakotothrix gelatinosa	0	0	0	0	0	0	*Elakotothrix gelatinosa*	1	114	8	819
Eudorina elegans	0	0	0	0	0	0	*Eudorina elegans*	0	0	0	0
Nephrocytium lunatum	0	0	0	0	0	0	*Nephrocytium lunatum*	0	0	0	0
Oocytsis sp.	0	0	4	498	0	0	*Oocytsis sp.*	15	2151	0	0
Tetraedon gracile	0	0	0	0	0	0	*Tetraedon gracile*	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	*Paulschulzia sp.*	0	0	0	0
Dictyosphaerium sp.	0	0	0		0	0	*Dictyosphaerium*	0	0	12	295
Crucigeniella sp	36	2358	11	722	9	598	*Crucigeniella sp*	2	141	0	0
Diatoms (Bacillariophyceae)							**Diatoms (Bacillariophyceae)**				
Asterionella formosa	10	2785	22	6143	55	15299	*Asterionella formosa*	366	102400	215	60333
Aulacoseira granulata	7	2176	0	0	102	31529	*Aulacoseira granulata*	30	9392	18	5441
Aulacoseira granulata var. *angustissima*	0	0	15	3955	0	0	*Aulacoseira granulata var. angustissima*	0	0	4	1014
Aulacoseria sp.	0	0	0	0	0	0	*Aulacoseria sp.*	0	0	0	0
Cyclotella stelligera	1	187	9	1404	2	346	*Cyclotella stelligera*	5	866	21	3432
Fragilaria crotonensis	18	6492	35	12566	24	8716	*Fragilaria crotonensis*	0	0	34	12217
Nitzschia sp.	1	456	2	913	2	844	*Nitzschia sp.*	5	2110	1	380
Synedra sp.	0	0	0	0	0	0	*Synedra sp.*	1	213	0	0
Amphora sp.	0	0	0	0	0	0	*Amphora sp.*	0	0	0	0
Cocconeis	0		1	306	0	0	*Cocconeis*	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)							**Desmids (Mesotaeniaceae, Desmidiaceae)**				
Closterium aciculare	0	0	1	350	0	0	*Closterium aciculare*	0	0	0	0
Closterium acutum var. *variable*	0	0	0	0	1	204	*Closterium acutum var. variable*	0	0	1	368
Chrysophtya (Chrysophyceae)							**Chrysophtya (Chrysophyceae)**			0	0
Dinobryon sp.	8	449	0	0	0	0	*Dinobryon sp.*	0	0	0	0
Cryptomonas sp.	0	0	1	84	1	78	*Cryptomonas sp.*	0	0	0	0
Dinoflagellates (Dinophyceae)							**Dinoflagellates (Dinophyceae)**				
Ceratium hirundinella	0	0	0	0	0	0	*Ceratium hirundinella*	0	0	0	0
Gymnodinium sp. 1	1	1287	1	644	2	1785	*Gymnodinium sp. 1*	0	0	0	0
Gymnodinium sp. 2	0	0	0	2925	0	0	*Gymnodinium sp. 2*	0	0	0	0
Peridinium sp.	0	0	0	0	0	0	*Peridinium sp.*	0	0	0	0
Gonyaulax sp.	1	2340	1	1170	0	0	*Gonyaulax sp.*	0	0	0	0
Flagellates 5µm							**Flagellates 5µm**			0	0
Flagellates < 5µm/unicells	67	2334	51	1781	76	2651	Flagellates < 5µm/unicells	328	11494	193	6757

Lake Taupo phytoplankton enumeration (10-m tube) 2007-08

Cell counts and biovolume

Cells per ml numbers may be affected by rounding

Sample code	TZ2	TZ2	TZ4	TZ4	WF2	WF2	XX1	XX1	XX4	XX4	AM1	AM1	BM1	BM1	BM3	BM3	DT1	DT1	EO1	EO1	EO3	EO3	EO5	EO5
Sampling date	**8/08/2007**	**8/08/2007**	**23/08/2007**	**23/08/2007**	**11/09/2007**	**11/09/2007**	**9/10/2007**	**9/10/2007**	**30/10/2007**	**30/10/2007**	**15/11/2007**	**15/11/2007**	**4/12/2007**	**4/12/2007**	**20/12/2007**	**20/12/2007**	**17/01/2008**	**17/01/2008**	**31/01/2008**	**31/01/2008**	**14/02/2008**	**14/02/2008**	**27/02/2008**	**27/02/2008**
Species composition by class	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**	**Cell (per ml)**	**Biovolume (μm^3)**
Blue greens (Cyanophyceae)																								
Anabaena lemmermannii	2	64	3	108	1	27	17	696	51	2100	18	725	1	27	29	1175	28.7	1175	21.3	875	25.0	1025	85.8	3518
Pseudanabaena limnetica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2	0.0	0	0.0	0	0.5	9
***Chroococcus* sp.**	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Microcystis* sp.**	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0
***c.f Rivularia* sp.**	0	0	0	0	1	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Aphanothece* sp.**	0	0	1	15	0	1	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0
***Aphanizomenon* sp.**	2	30	0	0	0	0	0	0	0	0	2	32	3	48	4	78	0.0	0	0.0	0	0.0	0	4.0	76
***Leptolyngbya* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0.0	0	0.0	0	0.0	0	0.0	0
Greens (Chlorophyceae)																								
Monoraphidium* sp. / *Ankistrodesmus falcatus	20	839	17	695	3	123	6	247	10	418	28	1189	18	737	114	4785	66	2764	0	0	0	0	0	0
Stichococcus contortus	175	0	97	1749	25	453	0	0	0	0	0	0	3	53	0	0	0	0	0	0	0	0	0	0
Kirchneriella contorta	0	0	0	0	56	1853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryococcus braunii	0	0	0	4800	0	0	0	0	0	0	0	0	0	1100	1	92840	0	0	0	0	0	0	0	259720
***Chlamydomonas* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	532	0	0	0	0	0	0	2	246
Eudorina elegans	0	0	0	0	0	0	0	0	1	300	0	0	0	0	0	0	2	624	4	1108	0	0	3	749
***Lagerheimia* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
***Oocystis* sp.**	0	0	0	0	1	166	5	758	5	665	0	0	1	166	6	839	2	277	0	0	0	0	0	0
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrigula lacustrus	0	0	5	788	3	480	0	0	0	0	0	0	0	0	3	554	0	0	0	0	0	0	0	0
Westella botryoides	10	634	29	1909	0	0	0	0	9	608	0	0	0	0	0	0	17	1077	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																								
Asterionella formosa	275	77123	292	81787	753	210974	124	34838	62	17363	15	4187	4	983	2	473	50	14060	11	3181	0	0	2	655
Aulacoseira granulata	0	0	0	0	13	3990	0	0	16	5078	3	993	0	0	0	0	0	0	0	0	0	0	0	0
Aulacoseira granulata* var. *angustissima	52	13436	11	2777	0	0	0	0	3	761	0	0	0	0	0	0	2	507	0	0	0	0	0	0
Cyclotella stelligera	14	2184	11	1709	8	1310	9	1452	11	1685	0	0	0	0	0	0	1	156	0	0	0	0	0	0
Fragilaria crotonensis	57	20419	27	9750	0	0	0	0	0	0	2	574	1	209	9	3324	19	6806	5	1743	0	0	13	4607
***Nitzschia* sp.**	0	0	5	2083	1	228	0	0	0	0	0	0	1	456	14	5596	1	380	0	0	0	0	2	684
***Synedra* sp.**	1	0	0	0	1	1638	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	60	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)																								
Closterium aciculare	0	0	0	0	0	0	0	160	0	0	1	320	1	350	1	506	0	0	0	0	0	0	0	0
Closterium acutum* var. *variable	1	551	1	201	1	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophtya (Chrysophyceae)																								
***Dinobryon* sp.**	21	1266	2	126	0	0	146	8633	297	17534	81	4789	76	4487	8	448	7	431	6	383	32	1915	73	4314
***Cryptomonas* sp.**	0	0	1	77	0	0	1	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mallomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																								
***Gymnodinium* sp. 1**	0	1463	0	0	0	0	1	3204	1	1755	0	0	1	1755	1	2532	0	0	6	17853	4	10820	16	49140
***Gymnodinium* sp. 2**	0	12188	1	13350	0	0	0	6675	0	0	0	0	0	7313	3	63300	0	6094	0	0	0	0	3	73125
Flagellates 5µm																								
Flagellates < 5µm/unicells	153	6582	296	10354	112	3911	129	4504	93	3256	78	2729	125	4382	526	18403	83	2901	99	3465	39	1373	60	2109

Sample code	HT1	HT1	HT3	HT3	KB1	KB1	LB1	LB1	LB3	LB3	MW1	MW1	MW3	MW3	OL1	OL1	OL3	OL3	QA2	QA2	QA4	QA4	RL2	RL2
Sampling date	13/03/2008	13/03/2008	26/03/2008	26/03/2008	17/04/2008	17/04/2008	7/05/2008	7/05/2008	22/05/2008	22/05/2008	5/06/2008	5/06/2008	18/06/2008	18/06/2008	1/07/2008	1/07/2008	15/07/2008	15/07/2008	7/08/2008	7/08/2008	20/08/2008	20/08/2008	4/09/2008	4/09/2008
Species composition by class	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)	Cell (per ml)	Biovolume (μm^3)
Blue greens (Cyanophyceae)																								
Anabaena lemmermannii	92	3778	7.0	288	56.6	2319	120.6	4946	2.2	91	1.1	46	1.7	71	12.2	500	9.8	403	0.8	32	0.2	7	0.9	37
Pseudanabaena limnetica	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	2.8	53	0.3	5	0.0	0	0.0	0
Chroococcus sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Microcystis sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
c.f Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aphanothece sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Aphanizomenon sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Leptolyngbya sp.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.4	16	0.0	0
Greens (Chlorophyceae)																								
Monoraphidium sp. / *Ankistrodesmus falcatus*	0	0	0	0	0	0	5	197	0	0	0	0	0.0	0	188	7907	0	0	73	3047	73	3071	130	5479
Stichococcus contortus	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0.0	0	0	0	26	474
Kirchneriella contorta	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0.0	0	0	0	0	0
Botryococcus braunii	0.1	469151	0	14435	0.04	259837	0	104870	0	28871	0	132806	0.0	3609	0	5774	0.1	226456	0.0	5413	0	0	0.0	17746
Chlamydomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elakotothrix gelatinosa	2	246	6	676	1	123	4	369	2	246	1	123	0	0	1	114	0	0	0	0	0	0	0	0
Eudorina elegans	8	2097	0	0	0	0	0	0	0	0	11	2696	0	0	0	0	0	0	0	0	9	2246	0	0
Lagerheimia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1797
Oocytsis sp.	0	0	0	0	1	166	5	665	2	332	0	0	0	0	6	914	0	0	5	665	7	997	0	0
Planktosphaeria gelatinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1412
Quadrigula lacustrus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westella botryoides	0	0	0	0	0	0	15	951	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)																								
Asterionella formosa	19	5242	12	3276	5	1310	10	2785	28	7862	25	6880	22	6061	25	7043	102	28501	191	53399	79	22113	94	26208
Aulacoseira granulata	0	0	0	0	0	0	2	725	12	3808	13	4171	2	725	0	0	35	10700	151	46788	0	0	18	5622
Aulacoseira granulata var. *angustissima*	0	0	0	0	0	0	4	913	0	0	0	0	0	0	25	6388	0	0	0	0	57	14754	0	0
Cyclotella stelligera	0	0	0	0	0	0	3	468	1	187	2	374	1	94	4	562	1	94	1	187	12	1872	18	2902
Fragilaria crotonensis	0	0	15	5445	4	1466	0	0	57	20315	61	21781	84	29948	46	16545	30	10890	18	6283	49	17592	59	20943
Nitzschia sp.	1	228	1	342	3	1141	2	684	2	913	0	0	1	228	4	1369	4	1597	1	456	0	0	2	684
Synedra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small unknown diatom sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)																								
Closterium aciculare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1051
Closterium acutum var. *variable*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	221	0	0	1	441	0	0	0	0
Chrysophtya (Chrysophyceae)																								
Dinobryon sp.	26	1519	2	104	4	242	8	483	8	466	9	518	0	0	9	518	0	0	0	0	0	0	20	1208
Cryptomonas sp.	1	84	0	0	1	84	1	168	1	84	1	84	2	337	0	0	2	337	0	0	0	0	0	0
Mallomonas sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1053	0	0	0	0	0	0	0	0
Dinoflagellates (Dinophyceae)																								
Gymnodinium sp. 1	6	19305	42	126360	12	36855	5	1843	35	12285	5	1638	4	1229	0	0	6	2048	0	0	0	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	0	1	29250	0	7313	0	0	1	14625	0	0	0	0	0	0
Flagellates 5µm																								
Flagellates < 5µm/unicells	57	1986	56	1945	73	2539	131	4586	47	1638	63	2191	111	3890	121	4238	115	4013	87	3030	207	7228	104	3645

Lake Taupo phytoplankton dominance plus enumeration (10-m tube) 2006-07

Dominance by biovolume (rank 1 = dominant,…rank 10 = rare), plus cell counts and biovolume from May 2007

Sample code	EM8	EM10	EM13	EM17	EM20	EM23	EM27	EM29	EM31	EM34	EM36	EM38	EM40	EM40	EM40	EM42	EM42	EM42	RY2	RY2	RY2	RY5	RY5	RY5
Sampling date	26/09/2006	18/10/2006	1/11/2006	5/12/2007	14/12/2007	9/01/2007	8/02/2007	21/02/2007	21/03/2007	3/04/2007	19/04/2007	8/05/2007	22/05/07	22/05/07	22/05/07	14/06/07	14/06/07	14/06/07	27/06/07	27/06/07	27/06/07	18/07/2007	18/07/2007	18/07/2007
Species composition by class	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Biovolume (μm^3)	cell (per ml)	Rank	Biovolume (μm^3)	cell (per ml)	Rank	Biovolume (μm^3)	cell (per ml)	Rank	Biovolume (μm^3)	cell (per ml)
Blue greens (Cyanophyceae)																								
Anabaena lemmermannii	5	5	5	5	9	5	9	9	3	4	5	4	6	303	10	8	450	15	5	1091	36	4	3652	17
***Anabaena* sp.**														0	0		0	0	10	29	0		0	0
***Aphanizomenon* sp.**							8	8	7	7	9	9	10	5	0		0	0		0	0	10	27	1
***Phormidium* sp.**									10	10	10			0	0		0	0		0	0		0	0
Greens (Chlorophyceae)																								
Ankistrodesmus falcatus/ Schroederia sp.																			9	120	5		0	0
Botryococcus braunii	7	2	2	3	3	1	1	1	1	1	5	3	1	1014600	0	1	38448	1	8	438	0		0	0
***Chlorosarcinopsis* sp.**	10	10																						
Elakotothrix gelatinosa													6	342	4		0	0		0	0		0	0
Eudorina elegans	9	9	10	10	10		10	10	10	10		10		0	0		0	0		0	0		0	0
Kirchneriella contorta														0	0	10	157	7		0	0	10	21	1
Monoraphidium sp/ Ankistrodesmus falcatus	10	10	10	10	10	10	10	10	8	8	9	7	5	561	19	2	20456	259	2	5061	46	5	2574	12
***Oocytsis* sp.**	7	8	9	9	9	10	7	7	10	10	10		9	43	1	6	3210	11	4	1605	5	9	293	1
Quadrigula lacustrus	9													0	0		0	0		0	0		0	0
Stichococcus contortus														0	0		0	0	7	534	4	6	1073	5
Westella botryoides	9	9	9	10	10	10	10	10						0	0		0	0		0	0		0	0
Diatoms (Bacillariophyceae)																					0			
Asterionella formosa	2	2	6	4	4		4	5						0	0	6	3173	10	3	4414	14	2	25087	81
Aulacoseira granulata	3	1	1	1	2	9	6	2	2	2	1			0	0	4	6760	22	1	7863	25	2	29167	94
Aulacoseira granulata* var. *angustissima												2	3	5590	8		0	0		0	0		0	0
Cyclotella stelligera	5	5	9	7	6	6	5	6						0	0	8	427	3	10	71	0	8	468	3
Fragilaria crotonensis	1	4	7				6	7	6	6		7	4	2294	6	3	13382	37	10	33	0	1	109152	107
***Gomphonema* sp.**																5	5559	14	5	1042	3	7	952	2
***Nitzschia* sp.**	10	10	10	10	10	10	10	10	10	10	7		8	155	1									
unknown diatom sp.											8			0	0		0	0		0	0		0	0
Desmids (Mesotaeniaceae, Desmidiaceae)																								
Closterium acutum	9	10	10	9	9	7	8	8	10	10				0	0	7	1335	3	6	668	1		0	0
Closterium acutum* var. *variable	10	10	10	9	8	8	8	8						0	0		0	0		0	0	7	731	1
***Mougeotia* sp.**		10												0	0		0	0		0	0		0	0
***Staurastrum* sp.**	10	10				10					9	6		0	0		0	0		0	0		0	0
Chrysophtya (Chrysophyceae)																								
***Cryptomonas* sp.**	10	10	10				10	10	10	10	10			0	0	9	267	1	9	196	1	9	293	1
***Dinobryon* sp.**	9	3	3	2	1	2	6	8	3	5	2	1	7	256	1		0	0		0	0		0	0
Dinoflagellates (Dinophyceae)																								
Ceratium hirundinella		10	10	10	10		4	1	3					0	0		0	0		0	0		0	0
***Gymnodinium* sp.**	5	7	4	3	5	7	3	3	4	6	4		2	11748	1		0	0		0	0		0	0
***Gymnodinium* sp. 2**												8		0	0		0	0	3	4450	0		0	0
Flagellates 5µm																								
Flagellates < 5µm/unicells	3	6	8	6	6	6	2	4	5	4	3	4	4	2138	50	3	16227	381	1	7521	177	3	4133	97

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2014-2015													
From Site A (Mid Lake) 25/4/2015													
	Surface	**10m**	**20m**	**50m**	**100m**	**150m**		**Surface**	**10m**	**20m**	**50m**	**100m**	**150m**
	JS1	**JS2**	**JS3**	**JS6**	**JS11**	**JS16**		**JS1**	**JS2**	**JS3**	**JS6**	**JS11**	**JS16**
	22/04/2015	**22/04/2015**	**22/04/2015**	**22/04/2015**	**22/04/2015**	**22/04/2015**		**22/04/2015**	**22/04/2015**	**22/04/2015**	**22/04/2015**	**22/04/2015**	**22/04/2015**
	Cells/ml	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**		**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	7.9	9.8	1.1	0.5	0.0	0.2		913	1131	0	58	5	27
***Leptolyngbya* sp.**	0.0	0.0	6.6	0.0	0.0	0.0		0	0	73	0	0	0
Dolichospermum sp.	6.9	0.3	0.0	0.0	0.0	0.0		1101	53	0	0	0	0
Greens (Chlorophyceae)													
Monoraphidium* sp. / *Ankistrodesmus falcatus	7	11	13	63	23	6		295	467	565	2654	983	246
Stichococcus contortus	0	14	9	16	9	0		0	253	168	295	168	0
Botryococcus braunii (colonies)	0	0.0	0.0	0.0	0.0	0.0		0	0	0	18152	18152	0
***Chlamydomonas* sp.**	0	0	1	0	1	1		0	0	246	0	123	123
***Crucigeniella* sp**	0	1	0	2	1	0		0	76	0	152	76	0
Elakatothrix gelatinosa	5	1	1	0	0	0		553	123	123	0	0	0
Eudorina elegans	6	0	14	0	0	0		1647	0	3594	0	0	0
***Oocystis* sp.**	10	5	5	9	2	2		1412	748	665	1246	332	332
Sphaerocystis schroeteri	19	5	5	15	12	0		0	0	0	0	0	0
unidentified Colonial green	0	0	0	1	0	0		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	0	4	0	16	10	22		0	1147	0	4423	2785	6224
Aulacoseira granulata	0	6	7	2	6	22		0	1814	2176	725	1995	6891
Aulacoseira granulata* var. *angustissima	0	0	0	0	0	9		0	0	0	0	0	2434
Cocconeis	0	0	0	0	0	1		0	0	0	0	0	612
Cyclotella stelligera	2	1	3	1	2	10		374	187	468	187	281	1591
Fragilaria crotonensis	2	0	0	0	0	4		838	0	0	0	0	1466
Fragilaria sp.	0	15	0	0	0	0		0	5236	0	0	0	0
***Nitzschia* sp.**	6	4	5	0	3	2		2510	1369	2053	0	1141	913
***Synedra* sp.**	0	0	1	4	4	1		0	0	230	1383	1383	461
***Amphora* sp.**	1	0	0	0	0	0		306	0	0	0	0	0
Small unknown diatom sp.	1	0	1	1	1	0		64	0	129	64	64	0
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum* var. *variable	1	0	0	2	3	1		221	0	0	662	1103	441
***Staurastrum* sp.**	0	0	0	0	0	0		0	0	0	14	0	0
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	0	5	0	0	0	0		0	276	0	0	0	0
***Cryptomonas* sp.**	0	0	1	3	1	1		0	0	168	421	84	84
Dinoflagellates (Dinophyceae)													
Ceratium hirundinella	0	0	0	0	0	0		0	210	210	0	0	0
***Gymnodinium* sp. 1**	3	2	3	1	1	0		3218	2574	3218	1287	644	0
***Gymnodinium* sp. 2**	0	0	0	0	0	0		0	0	0	0	0	0
***Peridinium* sp.**	4	2	6	7	0	0		16380	7020	25740	28080	0	0
Flagellates 5µm													
Flagellates < 5µm/unicells	35	26	30	43	13	15		1229	921	1044	1495	471	512

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2014-2015													
From Site A (Mid Lake) 25/11/2014													
	Surface	**10m**	**20m**	**50m**	**100m**	**150m**		**Surface**	**10m**	**20m**	**50m**	**100m**	**150m**
	CK1	**CK2**	**CK3**	**CK6**	**CK11**	**CK16**		**CK1**	**CK2**	**CK3**	**CK6**	**CK11**	**CK16**
	25/11/2014	**25/11/2014**	**25/11/2014**	**25/11/2014**	**25/11/2014**	**25/11/2014**		**25/11/2014**	**25/11/2014**	**25/11/2014**	**25/11/2014**	**25/11/2014**	**25/11/2014**
	Cells/ml	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**		**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**	**Biovolume µm^3**
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formerly Anabaena c.f. lemmermannii)	11.9	30.5	33.3	10.4	0.0	0.0		1379	3543	3863	1211	0	0
Greens (Chlorophyceae)													
Monoraphidium* sp. / *Ankistrodesmus falcatus	11	15	14	22	13	13		477	614	590	909	541	541
Stichococcus contortus	4	2	0	27	13	9		78	42	0	484	242	168
Botryococcus braunii (colonies)	0.0	0.0	0.0	0.0	0.0	0.0		0	0	0	0	18152	18152
***Crucigeniella* sp**	2	0	4	1	2	2		141	0	228	76	152	152
Elakatothrix gelatinosa	0	3	1	0	0	0		0	307	123	0	0	0
Eudorina elegans	0	0	5	0	0	0		0	0	1198	0	0	0
***Oocytsis* sp.**	9	8	7	6	5	1		1306	1163	997	831	748	166
***Scenedesmus* sp.**	0	0	5	0	0	0		0	0	243	0	0	0
Sphaerocystis schroeteri	23	26	17	5	0	5		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	8	16	13	11	3	2		2121	4586	3767	2948	819	655
Aulacoseira granulata	0	14	14	41	40	72		0	4352	4352	12695	12332	22306
Aulacoseira granulata* var. *angustissima	2	22	7	0	3	7		563	5780	1825	0	761	1825
Cocconeis	1	0	1	1	1	0		283	0	306	306	306	0
Cyclotella stelligera	3	13	11	6	6	6		519	2153	1778	936	1030	936
Fragilaria crotonensis	22	36	93	16	4	10		7941	12775	33299	5864	1257	3560
***Nitzschia* sp.**	2	3	1	0	1	1		633	1141	456	0	228	228
***Synedra* sp.**	1	1	1	2	1	1		213	230	461	922	230	461
***Amphora* sp.**	0	2	1	0	0	0		0	1224	306	0	0	0
***Eunotia* sp.**	0	0	1	0	0	0		0	0	0	0	0	0
Small unknown diatom sp.	2	2	1	4	1	2		179	257	129	386	129	193
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum* var. *variable	0	0	0	1	1	1		0	0	0	441	221	441
Cerasterias staurastroides	1	0	0	0	0	0		0	0	0	0	0	0
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	101	145	82	11	0	0		5969	8560	4832	656	0	0
***Cryptomonas* sp.**	0	2	2	1	0	0		0	253	253	84	0	0
Dinoflagellates (Dinophyceae)													
Ceratium hirundinella	0	0	0	0	0	0		0	210	420	0	0	0
***Gymnodinium* sp. 1**	1	0	0	1	0	1		1190	0	0	1287	0	644
***Gymnodinium* sp. 2**	0	0	0	0	0	0		0	0	0	0	0	0
***Peridinium* sp.**	3	2	2	0	1	0		10820	9360	9360	0	2340	0
Flagellates 5µm													
Flagellates < 5µm/unicells	15	36	28	26	5	8		530	1269	983	901	164	266

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2013-2014													
From Site A (Mid Lake) 9/04/2014													
	Surface	10m	20m	50m	100m	150m		Surface	10m	20m	50m	100m	150m
	RQ1	RQ2	RQ3	RQ6	RQ11	RQ16		RQ1	RQ2	RQ3	RQ6	RQ11	RQ16
	9/04/2014	9/04/2014	9/04/2014	9/04/2014	9/04/2014	9/04/2014		9/04/2014	9/04/2014	9/04/2014	9/04/2014	9/04/2014	9/04/2014
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		µm3	µm3	µm3	µm3	µm3	µm3
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	15.3	18.7	24.2	2.2	0.0	0.4		1778	2174	2805	260	0	45
Pseudanabaena sp.	0.0	0.0	0.0	0.0	0.0	3.4		0	0	0	0	0	64
Greens (Chlorophyceae)													
Monoraphidium sp. / Ankistrodesmus falcatus	1	3	1	31	4	1		45	123	49	1302	172	25
Stichococcus contortus	0	0	0	7	9	0		0	0	0	126	168	0
Botryococcus braunii (colonies)	0.01	0.00	0.00	0.00	0.00	0.00		22337	0	0	0	0	0
Crucigeniella sp	2	0	2	2	1	0		141	0	152	152	76	0
Dictyosphaerium	6	0	3	0	0	0		357	0	161	0	0	0
Elakotothrix gelatinosa	0	0	1	0	0	0		0	0	123	0	0	0
Oocytsis sp.	9	12	11	6	1	2		1229	1661	1578	831	83	332
Sphaerocystis schroeteri	2	0	4	0	0	0		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	0	2	0	12	3	5		0	655	0	3440	819	1310
Aulacoseira granulata	0	0	5	4	5	4		0	0	1451	1269	1451	1269
Aulacoseira granulata var. angustissima	0	0	0	0	0	3		0	0	0	0	0	761
Cyclotella stelligera	3	5	5	5	1	0		433	842	842	749	94	0
Fragilaria crotonensis	75	87	207	104	21	30		26921	31205	73929	37279	7539	10681
Fragilaria sp.	0	0	0	6	0	0		0	0	0	2094	0	0
Nitzschia sp.	0	1	1	0	0	0		0	456	228	0	0	0
Small unknown diatom sp.	0	1	0	0	0	0		0	64	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum var. variable	0	0	0	2	1	0		0	0	0	882	221	0
Chrysophtya (Chrysophyceae)													
Dinobryon sp.	17	0	11	0	0	0		989	0	621	0	0	0
Cryptomonas sp.	0	0	1	1	0	0		0	0	84	84	0	0
Dinoflagellates (Dinophyceae)													
Ceratium hirundinella	0	0	0	0	0	0		0	0	210	0	0	0
Gymnodinium sp. 1	0	1	2	0	0	0		0	1287	1931	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0		0	0	0	0	0	0
Peridinium sp.	1	0	1	1	0	0		4328	0	2340	2340	0	0
Flagellates 5µm													
Flagellates < 5µm/unicells	24	29	37	17	9	9		833	1003	1290	594	328	328

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2013-2014														
From Site A (Mid Lake) 7/11/2013														
	Surface	10m	20m	50m	100m	150m		Surface	10m	20m	50m	100m	150m
	JK1	JK2	JK3	JK6	JK11	JK16		JK1	JK2	JK3	JK6	JK11	JK16
	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013		7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	19.4	31.6	31.7	0.1	0.0	0.0		2249	3670	3680	48	0	0
***Pseudanabaena* sp.**	0.0	0.0	0.0	0.0	1.8	2.3		0	0	0	0	35	44
Greens (Chlorophyceae)													
Monoraphidium* sp. / *Ankistrodesmus falcatus	18	9	14	5	5	11		750	393	590	221	221	467
Stichococcus contortus	8	9	0	5	13	9		136	168	0	84	232	168
Botryococcus braunii (colonies)	0.00	0.00	0.01	0.01	0.00	0.00		0	0	18152	18152	0	0
***Chlamydomonas* sp.**	0	0	0	1	0	0		0	0	0	123	0	0
Dictyosphaerium	0	9	0	0	0	0		0	515	0	0	0	0
Eudorina elegans	0	0	0	0	0	0		20	0	0	0	0	0
***Oocytsis* sp.**	13	25	13	10	3	5		1844	3572	1828	1412	415	748
***Scenedesmus* sp.**	0	0	5	5	0	5		0	0	243	243	0	243
Sphaerocystis schroeteri	35	46	60	25	0	0		0	0	0	0	0	0
Tetraedon gracile	1	1	0	1	0	0		60	129	0	64	0	0
Volvox aureus	0	4	0	0	0	0		0	216	0	0	0	0
unidentified Colonial green	14	9	0	0	0	0		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	29	22	40	5	6	0		8028	6061	11302	1474	1638	0
Aulacoseira granulata	29	27	17	85	39	43		8889	8523	5259	26477	12150	13420
Aulacoseira granulata* var. *angustissima	2	0	6	13	11	13		422	0	1673	3346	2890	3346
Cyclotella stelligera	4	4	6	11	5	11		606	562	936	1685	749	1778
Fragilaria crotonensis	58	57	28	27	1	4		20724	20524	10053	9843	419	1257
Fragilaria sp.	0	16	0	0	7	0		0	5864	0	0	2513	0
***Nitzschia* sp.**	5	11	1	2	1	1		1899	4335	456	913	456	228
***Synedra* sp.**	1	0	1	2	1	0		426	0	230	922	230	0
***Eunotia* sp.**	0	0	1	1	0	0		0	0	0	0	0	0
Small unknown diatom sp.	2	2	1	0	1	0		179	193	129	0	64	0
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum* var. *variable	3	2	1	1	1	2		1224	662	441	441	441	662
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	38	21	0	0	0	0		2234	1243	0	0	0	0
***Cryptomonas* sp.**	0	2	5	4	1	2		0	337	674	505	168	253
Dinoflagellates (Dinophyceae)													
Ceratium hirundinella	0	0	0	0	0	0		0	210	210	420	0	0
***Gymnodinium* sp. 1**	0	2	1	1	0	0		0	2574	644	644	0	0
***Peridinium* sp.**	8	4	4	1	1	0		32460	16380	14040	2340	2340	0
Flagellates 5µm													
Flagellates < 5µm/unicells	48	49	54	15	6	8		1685	1720	1884	532	225	287

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2012-2013											
From Site A (Mid Lake) 22/04/2013											
	Surface	10m	50m	100m	150m		Surface	10m	50m	100m	150m
	ZE1	ZE2	ZE6	ZE11	ZE16		ZE1	ZE2	ZE6	ZE11	ZE16
	22/04/2013	22/04/2013	22/04/2013	22/04/2013	22/04/2013		22/04/2013	22/04/2013	22/04/2013	22/04/2013	22/04/2013
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		µm3	µm3	µm3	µm3	µm3
Blue greens (Cyanophyceae)											
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	25.6	26.4	5.6	5.6	2.0		2968	3065	645	644	226
***Aphanocapsa* sp.**	0.0	0.0	0.0	0.0	1.3		0	0	0	0	11
***Phormidium* sp.**	0.0	0.0	0.0	0.0	0.2		0	0	0	0	5
***Pseudanabaena* sp.**	0.3	0.0	0.0	0.0	2.4		5	0	0	0	45
Greens (Chlorophyceae)											
Monoraphidium* sp. / *Ankistrodesmus falcatus	0	0	4	1	1		0	0	147	49	49
Stichococcus contortus	0	0	0	0	2		0	0	0	0	32
Elakotothrix gelatinosa	8	5	0	0	1		795	491	0	0	61
***Oocytsis* sp.**	17	23	5	4	2		2458	3240	748	581	332
Volvox aureus	0	10	0	0	0		0	570	0	0	0
unidentified Colonial green	0	0	2	6	2		0	0	0	0	0
Diatoms (Bacillariophyceae)					0						0
Asterionella formosa	0	0	8	0	2		0	0	2293	0	491
Aulacoseira granulata	3	6	1	6	8		1006	1995	363	1995	2539
Aulacoseira granulata* var. *angustissima	0	0	4	6	1		0	0	913	1673	304
***Aulacoseria* sp.**	5	0	0	0	0		0	0	0	0	0
Cocconeis	1	0	0	0	1		283	0	0	0	306
Cyclotella stelligera	0	1	2	1	1		0	94	281	187	94
Fragilaria crotonensis	15	11	2	19	5		5423	3770	838	6911	1675
Fragilaria sp.	0	0	9	0	0		0	0	3141	0	0
***Nitzschia* sp.**	2	4	1	1	1		844	1369	456	228	456
***Synedra* sp.**	0	1	0	0	1		0	230	0	0	230
***Amphora* sp.**	0	1	1	0	1		0	306	612	0	306
Small unknown diatom sp.	2	1	1	0	1		179	129	129	0	64
Desmids (Mesotaeniaceae, Desmidiaceae)											
Closterium acutum* var. *variable	0	0	1	1	1		0	0	221	441	221
Chrysophtya (Chrysophyceae)											
***Dinobryon* sp.**	88	61	0	1	0		5171	3624	0	69	0
***Cryptomonas* sp.**	1	4	3	1	0		156	590	421	84	0
Dinoflagellates (Dinophyceae)											
Ceratium hirundinella	0	0	0	0	0		0	0	420	210	210
***Gymnodinium* sp. 1**	1	0	0	0	0		1190	0	0	0	0
***Peridinium* sp.**	2	2	0	0	1		8656	9360	0	0	2340
Flagellates 5µm											
Flagellates < 5µm/unicells	31	42	16	8	9		1079	1474	553	266	307

Lake Taupo phytoplankton species composition and biovolume (μm^3) 2012-2013

From Site A (Mid Lake) 24/10/2012

	Surface	10m	20m	50m	100m	150m		Surface	10m	20m	50m	100m	150m
	RF1	RF2	RF3	RF6	RF11	RF16		RF1	RF2	RF3	RF6	RF11	RF16
	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012		24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3	Biovolume µm3
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	31.1	38.8	20.9	15.0	4.1	2.7		3610	4501	2429	1735	473	312
***Aphanocapsa* sp.**	1.5	0.9	0.0	1.6	2.4	2.5		13	8	0	15	22	23
***Pseudanabaena* sp.**	0.0	0.0	0.0	0.0	1.5	12.8		0	0	0	0	28	242
Greens (Chlorophyceae)			0							0			
Monoraphidium* sp. / *Ankistrodesmus falcatus	21	29	5	15	14	9		863	1229	197	614	590	393
Stichococcus contortus	2	0	5	0	0	0		29	0	84	0	0	0
Botryococcus braunii (colonies)	0.0	0.0	0.0	0.0	0.0	0.0		58590	0	0	51006	0	0
***Crucigeniella* sp**	4	0	0	0	0	0		281	0	0	0	0	0
Elakotothrix gelatinosa	2	2	2	6	2	0		227	184	246	614	246	0
Eudorina elegans	0	29	13	9	20	0		10	7488	3295	2396	5092	0
Nephrocytium lunatum	0	0	0	0	0	2		0	0	0	0	0	0
***Oocytsis* sp.**	5	11	5	17	4	5		768	1495	748	2409	581	748
***Scenedesmus* sp.**	0	5	0	0	0	0		0	243	0	0	0	0
Westella botryoides	0	32	23	27	25	0		8	2053	1521	1749	1635	0
unidentified Colonial green	6	4	0	6	5	0		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	104	101	147	85	107	122		29236	28337	41114	23915	29975	34234
Aulacoseira granulata	0	46	105	74	95	84		0	14327	32643	23031	29560	25933
Aulacoseira granulata* var. *angustissima	13	32	16	40	14	4		3376	8366	4107	10495	3650	913
Cyclotella stelligera	6	4	2	7	5	10		952	562	374	1123	842	1591
Fragilaria sp.	0	1	0	0	0	0		0	209	0	0	0	0
***Nitzschia* sp.**	0	0	1	1	1	2		0	0	228	228	456	913
Closterium acutum* var. *variable	1	1	0	1	1	0		204	221	0	221	221	0
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	34	39	34	50	6	16		2011	2313	2002	2968	380	966
***Cryptomonas* sp.**	0	0	0	2	1	0		0	0	0	337	84	0
Dinoflagellates (Dinophyceae)			0							0			
Ceratium hirundinella	0	0	0	0	0	0		0	420	0	210	420	0
***Gymnodinium* sp. 2**	0	0	0	0	0	0		0	200	1600	400	2400	0
Flagellates 5µm													
Flagellates < 5µm/unicells	28	147	148	109	68	82		985	5160	5180	3808	2396	2867

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2011-2012											
From Site A (Mid Lake) 10/04/2012											
	Surface	10m	50m	100m	150m		Surface	10m	50m	100m	150m
	HC1	HC2	HC6	HC11	HC16		HC1	HC2	HC6	HC11	HC16
	10/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012		10/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		µm3	µm3	µm3	µm3	µm3
Blue greens (Cyanophyceae)											
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	16.66	5.5	0.8	0	0.3		1933	636	92	0	32
Anabaena planktonica	0	0	1.1	0	0		0	0	439	0	0
Anabaena sp.	0	0	0	0	0.6		0	0	0	0	51
Snowella sp.	0	0	0.2	0.1	0		0	0	5	3	0
Phormidium sp.	0	0	0.7	0	0.1		0	0	14	0	3
Aphanothece sp.	0	0.7	0	0	0		0	6	0	0	0
Pseudanabaena sp.	2.8	0	0	0	0.2		54	0	0	0	3
Greens (Chlorophyceae)											
Monoraphidium* sp. / *Ankistrodesmus falcatus	49	45	35	3	4		2039	1892	1474	123	147
Botryococcus braunii (colonies)	0	0	0	0	0		0	38315	0	0	0
Dictyosphaerium	0	0	0	0	0		0	10	7	0	0
Elakotothrix gelatinosa	0	0	1	0	0		0	0	123	0	0
Eudorina elegans	0	4	0	0	0		0	899	0	0	0
Nephrocytium lunatum	0	2	0	0	0		0	0	0	0	0
***Oocytsis* sp.**	7	8	6	0	1		997	1163	831	0	166
***Scenedesmus* sp.**	0	0	0	0	1		0	0	0	0	61
Diatoms (Bacillariophyceae)											
Asterionella formosa	8	0	9	3	4		2293	0	2457	819	1147
Aulacoseira granulata	0	0	9	0	15		0	0	2720	0	4534
Aulacoseira granulata var. angustissima	0	4	0	2	17		0	1065	0	608	4411
Cyclotella stelligera	1	0	1	0	1		94	0	187	0	187
Fragilaria crotonensis	47	111	13	31	41		16754	39792	4817	11100	14660
Nitzschia sp.	8	10	18	6	8		2966	3879	7073	2282	2966
Synedra sp.	1	0	0	0	0		230	0	46	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)											
Closterium aciculare	0	0	0	0	1		0	0	0	0	350
Closterium acutum* var. *variable	1	1	1	2	1		221	221	221	662	441
Chrysophtya (Chrysophyceae)											
***Dinobryon* sp.**	11	20	5	0	0		621	1208	276	0	0
***Cryptomonas* sp.**	0	1	1	0	0		0	168	168	0	0
Dinoflagellates (Dinophyceae)											
***Gymnodinium* sp. 1**	1	2	0	0	0		644	2574	0	0	0
***Gymnodinium* sp. 2**	0	0	0	0	0		0	0	260	0	20
***Gonyaulax* sp.**	4	4	0	0	0		7020	7020	0	0	0
Flagellates 5µm											
Flagellates < 5µm/unicells	94	178	75	12	22		3276	6245	2641	410	778

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2011-2012														
From Site A (Mid Lake) 25/10/2011														
	Surface	10m	20m	50m	100m	150m		Surface	10m	20m	50m	100m	150m
	ZH1	ZH2	ZH16	ZH3	ZH6	ZH11		ZH1	ZH2	ZH16	ZH3	ZH6	ZH11
	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011		25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		µm3	µm3	µm3	µm3	µm3	µm3
Blue greens (Cyanophyceae)													
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	4.1	0.0	0.0	4.6	0.0	0.1		478	0	0	529	0	10
Greens (Chlorophyceae)													
Monoraphidium* sp. / *Ankistrodesmus falcatus	0	1	3	3	27	3		0	25	123	123	1155	123
Stichococcus contortus	0	0	0	0	36	0		0	0	0	0	653	0
Botryococcus braunii (colonies)	0.0	0.0	0.0	0.0	0.0	0.0		0	18152	0	0	0	18152
Dictyosphaerium	0	0	0	2	0	0		0	0	0	129	0	0
Elakotothrix gelatinosa	1	1	0	2	2	1		114	123	0	246	184	123
***Oocytsis* sp.**	5	2	0	3	4	5		768	332	0	415	498	665
Sphaerocystis schroeteri	0	0	0	0	24	10		0	0	0	0	0	0
unidentified Colonial green	4	2	0	2	2	0		0	0	0	0	0	0
Diatoms (Bacillariophyceae)													
Asterionella formosa	4	4	0	2	9	6		1060	1147	0	655	2621	1802
Aulacoseira granulata	6	6	11	23	25	16		1845	1995	3446	7073	7617	5078
Aulacoseira granulata* var. *angustissima	17	24	11	26	30	20		4501	6236	2738	6692	7757	5171
Cocconeis	0	1	0	0	0	0		0	306	0	0	0	0
Cyclotella stelligera	10	7	5	6	14	11		1645	1123	842	1030	2246	1685
Fragilaria crotonensis	13	18	0	31	20	11		4648	6283	0	11100	7121	3770
***Nitzschia* sp.**	1	1	1	0	2	3		422	456	228	0	913	1141
***Synedra* sp.**	0	0	1	1	1	2		0	0	230	230	461	922
***Amphora* sp.**	0	0	1	0	0	1		0	0	306	0	0	306
Small unknown diatom sp.	0	0	0	1	1	1		0	0	0	129	64	129
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum* var. *variable	1	0	2	1	1	0		204	0	662	221	221	0
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	14	32	0	30	12	0		798	1898	0	1795	725	0
***Cryptomonas* sp.**	0	0	0	2	1	1		0	0	0	337	168	168
Dinoflagellates (Dinophyceae)													
Ceratium hirundinella	0	0	0	0	0	0		210	0	0	210	0	0
Flagellates 5µm													
Flagellates < 5µm/unicells	23	25	11	24	22	8		795	880	389	839	778	287

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2010-2011													
From Site A (Mid Lake) 10/11/2010													
Sample code	**KD1**	**KD2**	**KD3**	**KD6**	**KD11**	**KD16**		**KD1**	**KD2**	**KD3**	**KD6**	**KD11**	**KD16**
Depth	**Surface**	**10m**	**20m**	**50m**	**100m**	**150m**		**Surface**	**10m**	**20m**	**50m**	**100m**	**150m**
	10/11/2010	**10/11/2010**	**10/11/2010**	**10/11/2010**	**10/11/2010**	**10/11/2010**		**10/11/2010**	**10/11/2010**	**10/11/2010**	**10/11/2010**	**10/11/2010**	**10/11/2010**
	Cells/ml	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**	**Cells/ml**		**µm3**	**µm3**	**µm3**	**µm3**	**µm3**	**µm3**
Blue greens (Cyanophyceae)													
Anabaena c.f. lemmermannii	11.4	48.7	25.5	6.1	0.0	0.0		1023	4387	2293	547	0	0
***Aphanocapsa* sp.**	0.0	0.0	0.0	0.0	0.0	8.2		0	0	0	0	0	74
***Pseudanabaena* sp.**	0.0	0.0	0.0	0.0	0.1	40.6		0	0	0	0	3	772
Greens (Chlorophyceae)													
Actinastrum hantschii	0	0	0.0	0	0	0.2		0	0	0	0	0	0
Monoraphidium* sp. / *Ankistrodesmus falcatus	382	539	235	115	38	0.4		16042	22631	9884	4817	1593	15
Stichococcus contortus	0	0	0	18	9	0.0		0	0	0	321	160	0
Botryococcus braunii (colonies)	0.0	0	0	0	0	0		0	0	0	0	110	0
Dictyosphaerium sp.	1	20	2	9	0	0		0	0	0	0	0	0
Eudorina elegans	1	1	1	1	0	0		277	150	138	300	0	0
***Oocytsis* sp.**	4	2	2	9	2	0		615	332	307	1246	229	0
***Scenedesmus* sp.**	0	2	0	2	0	10		0	122	0	122	0	504
Diatoms (Bacillariophyceae)													
Asterionella formosa	102	129	73	104	10	6		28630	36036	20450	29156	2711	1582
Aulacoseira granulata	18	137	76	235	88	140		5534	42436	23479	72903	27390	43274
Aulacoseira granulata* var. *angustissima	0	0	0	18	5	0		0	0	0	4715	1259	0
Cyclotella stelligera	2	2	2	4	0	4		346	374	346	655	0	581
Fragilaria crotonensis	16	15	6	4	0	0		5810	5236	2130	1257	0	0
***Nitzschia* sp.**	0	5	3	2	4	4		0	1825	1266	684	1573	1731
***Synedra* sp.**	3	0	0	1	1	0		1279	0	0	461	318	0
Desmids (Mesotaeniaceae, Desmidiaceae)													
Closterium acutum* var. *variable	0	0	0	2	0	1		0	0	0	662	152	456
***Mougeotia* sp.**	0	0	0	2	0	0		0	0	0	0	0	0
Staurastrum tangaroaii	0	1	1	0	0	0		0	0	0	0	0	0
Chrysophtya (Chrysophyceae)													
***Dinobryon* sp.**	62	191	145	13	0	0		3639	11252	8554	759	0	0
***Cryptomonas* sp.**	0	0	0	1	1	0		0	0	0	168	116	0
Dinoflagellates (Dinophyceae)													
***Gymnodinium* sp. 1**	0	1	1	0	0	1		0	644	1190	0	0	888
***Gymnodinium* sp. 2**	0	0	1	1	0	0		0	0	27050	14625	0	0
***Gonyaulax* sp.**	207	2	4	0	0	0		413324	4680	7574	0	0	0
Flagellates 5µm													
Flagellates < 5µm/unicells	214	205	188	147	26	28		7498	7166	6589	5160	918	988

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2010-2011											
From Site A (Mid Lake) 13/04/2011											
Sample code	RL1	RL2	RL6	RL11	RL16		RL1	RL2	RL6	RL11	RL16
Depth	0m	10m	50m	100m	150m		0m	10m	50m	100m	150m
	13/04/2011	13/04/2011	13/04/2011	13/04/2011	13/04/2011		13/04/2011	13/04/2011	13/04/2011	13/04/2011	13/04/2011
	Cells/ml	Cells/ml	Cells/ml	Cells/ml	Cells/ml		µm3	µm3	µm3	µm3	µm3
Blue greens (Cyanophyceae)											
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	16.7	5.0	0.4	0.0	0.0		1933	580	42	0	0
Gloeocapsa sp.	0.0	0.0	0.2	0.0	0.0		0	0	2	0	0
Snowella sp.	0.0	0.0	0.0	0.2	0.0		0	0	0	5	0
Pseudanabaena sp.	2.8	0.0	0.0	0.0	0.0		54	0	0	0	0
Greens (Chlorophyceae)											
Monoraphidium* sp. / *Ankistrodesmus falcatus	2	1	5	1	2		74	49	217	49	74
Botryococcus braunii (colonies)	0	1	0	0	0		8760	512447	0	0	0
Dictyosphaerium	2	2	2	0	0		97	97	97	0	0
Elakotothrix gelatinosa	2	0	0	0	0		227	0	0	0	0
Eudorina elegans	0	0	0	0	0		18	0	0	0	0
***Oocytsis* sp.**	44	55	1	0	0		6223	7808	166	0	0
Diatoms (Bacillariophyceae)											
Asterionella formosa	3	3	2	1	2		746	819	655	328	655
Aulacoseira granulata	6	1	4	2	2		1753	363	1088	544	725
Aulacoseira granulata var. angustissima	0	3	18	19	15		0	760	4563	4867	3802
Cyclotella stelligera	3	2	1	2	1		420	374	187	281	94
Fragilaria crotonensis	14	23	0	0	0		4889	8377	0	0	0
Fragilaria sp.	0	0	1	0	0		0	0	209	0	0
Nitzschia sp.	0	0	1	0	0		0	0	228	0	0
Synedra sp.	0	1	0	0	0		0	230	0	0	0
Rhoicosphenia sp.	0	0	1	0	0		0	0	306	0	0
Small unknown diatom sp.	0	0	1	0	0		0	0	129	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)											
Closterium acutum* var. *variable	0	1	1	0	0		0	221	221	0	0
Chrysophtya (Chrysophyceae)											0
***Dinobryon* sp.**	13	13	0	1	1		751	794	0	35	35
***Cryptomonas* sp.**	0	1	2	0	0		0	84	253	0	0
Dinoflagellates (Dinophyceae)											0
***Gymnodinium* sp. 1**	1	1	0	0	0		595	643	0	0	0
Flagellates 5µm											0
Flagellates < 5µm/unicells	35	32	28	6	3		1214	1106	983	225	102

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2009-2010

From Site A (Mid Lake) 19/10/2009

Sample code	OT1	OT2	OT3	OT6	OT8	OT11	OT16	OT1	OT2	OT3	OT6	OT8	OT11	OT16
Depth	Surface	10m	20m	50m	70m	100m	150m	Surface	10m	20m	50m	70m	100m	150m
	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)
Blue greens (Cyanophyceae)														
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	27.4	6.8	1.1	0.4	0.0	0.0	0.1	2470	610	99	40	0	0	9
***Chroococcus* sp.**	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2	0	0	0	0	0	0
***Microcystis* sp.**	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0	19	0	0	0	0	0
Dictyosphaerium sp.	18.0	31.6	31.3	7.4	2.7	0.4	0.0	451	789	782	186	67	11	0
***Phormidium* sp.**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0
***Pseudanabaena* sp.**	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0	0	0	0	4	0	0
Greens (Chlorophyceae)														
Monoraphidium* sp. / *Ankistrodesmus falcatus	2	4	0	0	12	0	0	68	147	0	0	491	0	0
Botryococcus braunii (colonies)	0.0	0	0	0	0	0	0	30946	0	950	0	0	0	1900
***Crucigeniella* sp**	4	8	0	0	0	2	0	281	494	0	0	0	152	0
Dictyosphaerium sp.	0	0	0	0	0	0	9	0	0	0	0	0	0	658
Eudorina elegans	0	0	0	11	0	0	0	0	0	0	2696	0	0	0
Nephrocytium agardhianum	0	11	5	0	0	0	0	0	790	351	0	0	0	0
***Oocytsis* sp.**	0	7	5	0	2	2	0	0	997	665	0	332	332	0
Westella botryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulschulzia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)														
Asterionella formosa	128	218	97	78	26	4	43	35749	60934	27191	21785	7207	983	12121
Aulacoseira granulata* var. *angustissima	17	49	43	21	65	40	36	4360	12624	11103	5476	16883	10343	9278
Cyclotella stelligera	4	5	1	2	11	15	18	692	842	187	374	1778	2340	2808
Fragilaria crotonensis	267	467	352	153	76	32	47	95677	167335	126077	54871	27226	11519	16754
***Nitzschia* sp.**	1	0	1	0	0	0	0	422	0	228	0	0	0	0
***Synedra* sp.**	1	2	0	0	0	0	2	213	922	0	0	0	0	691
Desmids (Mesotaeniaceae, Desmidiaceae)														
Closterium aciculare	0	1	1	0	0	0	0	0	350	350	0	0	0	0
Closterium acutum* var. *variable	2	1	0	1	2	1	1	612	441	0	441	662	221	441
Chrysophtya (Chrysophyceae)														
***Dinobryon* sp.**	23	70	140	89	3	0	0	1373	4142	8284	5246	173	0	0
***Cryptomonas* sp.**	0	0	0	1	1	0	0	0	0	0	84	168	0	0
Dinoflagellates (Dinophyceae)														
***Gymnodinium* sp. 1**	1	0	0	0	0	0	0	595	0	0	0	0	0	0
***Gymnodinium* sp. 2**	0	0	0	0	0	0	0	0	0	2925	2925	0	0	0
***Peridinium* sp.**	0	0	0	0	0	0	0	0	0	0	1170	0	0	0
***Gonyaulax* sp.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagellates 5µm														
Flagellates < 5µm/unicells	144	294	211	172	159	79	102	5037	10299	7371	6020	5569	2764	3583

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2009-2010

From Site A (Mid Lake) 7/04/2010

Sample code / Depth	YZ1 Surface Cell (per ml)	YZ2 10m Cell (per ml)	YZ3 20m Cell (per ml)	YZ6 50m Cell (per ml)	YZ11 100m Cell (per ml)	YZ16 150m Cell (per ml)	YZ1 Surface Biovolume (µm^3)	YZ2 10m Biovolume (µm^3)	YZ3 20m Biovolume (µm^3)	YZ6 50m Biovolume (µm^3)	YZ11 100m Biovolume (µm^3)	YZ16 150m Biovolume (µm^3)
Blue greens (Cyanophyceae)												
Anabaena c.f. lemmermannii	10.2	27.6	15.4	5.3	0.3	0.6	921	2482	1390	475	27	53
Dolichospermum planctonicum (formerly; ***Anabaena planktonica)***	0.6	0.0	0.0	0.0	0.0	0.0	242	0	0	0	0	0
***Aphanocapsa* sp.**	0.0	0.0	0.0	0.0	0.4	0.0	0	0	0	0	4	0
***cf Heteroleibleinia* sp.**	0.0	0.0	0.3	0.0	0.0	0.0	0	0	5	0	0	0
***Phormidium* sp.**	0.0	0.0	0.0	0.0	0.0	0.4	0	0	0	0	0	8
***Pseudanabaena* sp.**	0.0	0.0	0.0	0.0	2.3	0.3	0	0	0	0	44	6
Greens (Chlorophyceae)												
Monoraphidium* sp. / *Ankistrodesmus falcatus	0	0	0	111	0	0	0	0	0	4643	0	0
Botryococcus braunii (colonies)	0.0	0	0	0	0	0	1200	76	6621	0	76	76
Elakotothrix gelatinosa	1	0	0	0	0	0	157	0	0	0	0	0
Eudorina elegans	0	0	4	0	0	0	96	0	930	0	0	0
Nephrocytium agardhianum	10	2	2	2	0	0		182	0	0	0	0
Nephrocytium lunatum	0	5	0	0	0	0	784	387	121	121	0	0
***Oocytsis* sp.**	16	28	12	23	2	15	2225	4010	1719	3208	344	2177
Quadrigula lacustrus	1	0	0	0	0	0	245	0	0	0	0	0
***Scenedesmus* sp.**	0	2	0	3	0	0	0	84	0	168	0	0
Diatoms (Bacillariophyceae)												
Asterionella formosa	0	0	0	0	1	0	0	0	0	0	226	0
Aulacoseira granulata	0	0	0	0	0	8	116	0	0	0	0	2626
Aulacoseira granulata* var. *angustissima	0	0	0	1	5	0	0	0	0	210	1259	0
Cocconeis	0	0	0	0	0	0	0	0	211	0	0	0
Cyclotella stelligera	4	0	0	2	0	1	716	0	0	323	0	194
Fragilaria crotonensis	0	23	7	8	2	1	134	8088	2600	2744	578	433
***Nitzschia* sp.**	2	4	4	0	1	0	873	1416	1416	0	315	0
***Eunotia* sp.**	4	0	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)												
Closterium acutum* var. *variable	0	0	0	1	1	0	0	0	0	304	456	152
***Staurastrum* sp.**	0	0	0	0	0	0	0	0	0	1	0	0
Chrysophtya (Chrysophyceae)												
***Dinobryon* sp.**	42	13	61	6	0	0	2487	738	3618	381	0	0
***Cryptomonas* sp.**	0	0	0	2	0	0	0	0	58	232	0	0
Dinoflagellates (Dinophyceae)												
Ceratium hirundinella	0	0	2	4	0	0	126	147	246	369	0	0
***Gymnodinium* sp. 1**	0	1	0	0	0	0	0	888	0	0	444	0
***Gymnodinium* sp. 2**	0	1	0	0	0	0	0	20172	0	0	0	0
***Gonyaulax* sp.**	6	5	3	0	0	0	12686	10490	5648	0	0	0
Flagellates 5µm												
Flagellates < 5µm/unicells	47	59	56	40	11	19	1658	2062	1949	1384	395	650

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2008-2009
From Site A (Mid Lake) 15/04/2009

Sample code Depth	SZ1 Surface Cell (per ml)	SZ2 10m Cell (per ml)	SZ3 20m Cell (per ml)	SZ6 50m Cell (per ml)	SZ11 100m Cell (per ml)	SZ16 150m Cell (per ml)	SZ1 Surface Biovolume (µm^3)	SZ2 10m Biovolume (µm^3)	SZ3 20m Biovolume (µm^3)	SZ6 50m Biovolume (µm^3)	SZ11 100m Biovolume (µm^3)	SZ16 150m Biovolume (µm^3)
Species composition by class												
Blue greens (Cyanophyceae)												
Dolichospermum c.f. lemmermannii												
(formally; Anabaena c.f. lemmermannii)	0.0	1.3	0.0	0.8	0.0	0.0	0	51	0	31	0	0
Aphanothece sp.	0.0	0.0	0.0	0.0	7.3	0.0	0	0	0	0	66	0
Pseudanabaena sp.	0.0	0	0.0	0.0	22.2	5.3	0	0	0	0	422	100
Greens (Chlorophyceae)												
Monoraphidium sp. / Ankistrodesmus falcatus	68	71	0.5	55	13	6	2875	2998	22	2318	545	273
Stichococcus contortus	0	0	0.0	0	17	15	0	0	0	0	302	263
Kirchneriella contorta	0	0	0.0	1	0	0	0	0	0	36	0	0
Botryococcus braunii (colonies)	0.0	0	0.0	0.0	0	0	0	0	21653	16240	76507.95	0
Elakotothrix gelatinosa	5	10	2	2	0	0	491	1044	227	227	0	0
Nephrocytium agardhianum	2	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	6	1	4	1	4	1	831	166	581	166	498	166
Quadrigula lacustrus	2	0	0	0	0	0	384	0	0	0	0	0
Diatoms (Bacillariophyceae)												
Asterionella formosa	94	71	102	71	6	2	26372	19820	28501	19984	1802	655
Aulacoseira granulata	0	0	0	1	3	1	0	0	0	363	907	363
Aulacoseira granulata var. angustissima	1	22	8	8	0	0	304	5628	2129	1977	0	0
Cyclotella stelligera	5	4	11	4	2	2	842	562	1685	562	374	281
Fragilaria crotonensis	151	42	9	183	15	7	54033	14870	3141	65552	5236	2513
Synedra sp.	1	0	0	0	0	0	0	0	0	0	0	0
Eunotia sp.	0	1	0	0	0	0	0	0	0	0	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)												
Closterium aciculare	1	1	0	1	0	0	701	701	0	701	0	0
Closterium acutum var. variable	0	0	1	0	1	1	0	0	221	0	221	221
Chrysophtya (Chrysophyceae)												
Dinobryon sp.	1	0	32	3	0	0	69	0	1898	173	0	0
Cryptomonas sp.	0	1	0	1	0	0	0	84	0	84	0	0
Dinoflagellates (Dinophyceae)												
Gymnodinium sp. 2	1	0	1	0	0	0	14625	0	14625	0	0	0
Flagellates 5µm												
Flagellates < 5µm/unicells	132	201	111	140	24	13	4607	7023	3870	4914	839	450

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2008-2009

From Site A (Mid Lake) 14/10/2008

Sample code	EU1	EU2	EU6	EU8	EU11	EU16	EU1	EU2	EU6	EU8	EU11	EU16
Depth	Surface	10m	50m	70m	100m	150m	Surface	10m	50m	70m	100m	150m
	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Cell (per ml)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)
Species composition by class												
Blue greens (Cyanophyceae)												
Dolichospermum c.f. lemmermannii (formally; Anabaena c.f. lemmermannii)	1.2	8.5	1.6	0.0	0.0	0.0	104	767	143	4	0	0
***Dolichospermum sp. (formally; Anabaena* sp.)**	0.5	0.9	0.0	0.0	0.0	0.0	49	83	0	0	0	0
Pseudanabaena sp.	0.0	0.0	0.0	1.7	0.3	0.6	0	0	0	33	5	11
Greens (Chlorophyceae)												
Monoraphidium sp. / Ankistrodesmus falcatus	0	0	54	2	19	2	0	0	2260	66	786	82
Botryococcus braunii (colonies)	0.0	1	0	0	1	0	123784	1111500	370500	0	741000	0
Crucigeniella sp	52	53	5	3	0	0	3399	3448	304	203	0	0
Elakotothrix gelatinosa	1	0	0	0	0	0	76	0	0	0	0	0
Eudorina elegans	0	11	2	0	0	0	0	2796	599	0	0	0
Oocytsis sp.	3	0	2	0	1	0	410	0	222	0	111	0
Westella botryoides	0	5	3	2	0	0	0	304	203	152	0	0
Paulschulzia sp.	2	0	0	0	0	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)												
Asterionella formosa	3	6	4	4	1	1	707	1638	1201	1092	218	218
Aulacoseira granulata	0	2	4	9	5	1	0	605	1209	2660	1693	242
Aulacoseira granulata var. angustissima	0	2	6	0	0	2	0	507	1622	0	0	406
Cyclotella stelligera	1	1	4	1	0	0	115	187	686	125	62	62
Fragilaria crotonensis	6	10	0	0	0	1	2066	3630	0	0	0	419
Nitzschia sp.	0	0	0	0	0	0	70	152	0	0	0	152
Desmids (Mesotaeniaceae, Desmidiaceae)												
Closterium aciculare	0	0	0	0	0	0	0	0	117	0	0	0
Closterium acutum var. variable	0	0	0	2	0	0	0	0	147	735	0	0
Chrysophtya (Chrysophyceae)												
Dinobryon sp.	7	2	0	0	0	0	426	138	0	0	0	0
Cryptomonas sp.	0	0	1	0	0	0	0	0	168	0	0	0
Dinoflagellates (Dinophyceae)												
Gymnodinium sp. 1	0	2	0	0	0	0	0	2145	0	0	0	0
Gymnodinium sp. 2	0	1	0	0	0	0	0	19500	0	0	0	0
Gonyaulax sp.	1	1	0	0	0	0	2164	1560	0	0	0	0
Flagellates 5µm												
Flagellates < 5µm/unicells	34	46	27	22	10	9	1174	1611	956	778	355	300

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2007-2008
From Site A (Mid Lake) 30/10/2007

Sample code	ZA1	ZA2	ZA3	ZA6	ZA8	ZA11	ZA16	ZA1	ZA2	ZA3	ZA6	ZA8	ZA11	ZA16
Depth	Surface	10m	20m	50m	70m	100m	150m	Surface	10m	20m	50m	70m	100m	150m
Species composition by class	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)
Blue greens (Cyanophyceae)														
Anabaena lemmermannii	18.7	22.0	2.9	0.4	0.0	0.0	1.6	1683	1976	257	33	0	0	140
Chroococcus sp.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0	0	0	1	0	0	0
Aphanocapsa sp.	0.0	0.0	0.0	6.9	0.0	5.8	6.6	0	0	0	62	0	52	59
Planktolyngbya sp.	21.3	0.0	0.0	0.0	0.0	0.0	0.0	192	0	0	0	0	0	0
Pseudanabaena sp.	0.0	0.0	0.0	0.0	0.0	4.9	0.3	0	0	0	0	0	94	6
Greens (Chlorophyceae)														
Monoraphidium sp. / *Ankistrodesmus falcatus*	52	21	29	15	6	0	0	2187	885	1229	614	270	0	0
Stichococcus contortus	39	6	13	15	6	2	4	706	116	242	274	116	42	63
Botryococcus braunii (colonies)	0	0	0	1	0	0	0	0	0	0	235139	0	804	0
Eudorina elegans	13	3	7	0	0	0	0	3295	749	1797	0	0	0	0
Crucigeniella sp.	0	2	8	5	5	0	0	0	152	532	304	304	0	0
Nephrocytium agardhianum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oocytsis sp.	9	4	0	1	0	9	1	1246	498	0	166	0	1246	166
Diatoms (Bacillariophyceae)														
Asterionella formosa	33	73	102	62	34	4	14	9173	20311	28665	17363	9500	983	3931
Aulacoseira granulata	15	37	91	25	9	25	13	4715	11606	28109	7617	2902	7617	4171
Aulacoseira granulata var. angustissima	0	0	0	0	0	3	0	0	0	0	0	0	761	0
Cyclotella stelligera	6	8	22	9	5	9	10	1030	1217	3557	1404	842	1404	1591
Fragilaria crotonensis	11	14	22	7	7	20	2	3770	5026	7958	2513	2513	7330	838
Nitzschia sp.	0	0	0	0	0	1	0	0	0	0	0	0	228	0
Desmids (Mesotaeniaceae, Desmidiaceae)														
Closterium aciculare	1	1	0	1	1	1	1	701	350	0	526	526	350	350
Closterium acutum var. *variable*	1	1	0	0	0	0	0	221	265	0	44	0	0	0
Chrysophtya (Chrysophyceae)														
Dinobryon sp.	275	182	227	135	108	1	0	16222	10734	13392	7938	6351	69	0
Cryptomonas sp.	0	0	1	1	0	0	0	0	0	168	168	0	0	0
Dinoflagellates (Dinophyceae)														
Gymnodinium sp. 1	0	1	1	1	1	0	0	0	3510	3510	1755	1755	0	0
Gymnodinium sp. 2	0	1	0	1	0	0	0	0	14044	26750	1463	0	0	0
Flagellates 5µm														
Flagellates < 5µm/unicells	139	404	406	243	144	25	13	4853	14148	14210	8497	5037	860	450

Lake Taupo phytoplankton species composition and biovolume (µm^3) 2007-2008
From Site A (Mid Lake) 17/04/2008

Sample code	KA1	KA2	KA3	KA6	KA11	KA16	KA1	KA2	KA3	KA6	KA11	KA16
Depth	Surface	10m	20m	50m	100m	150m	Surface	10m	20m	50m	100m	150m
Species composition by class	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)	Biovolume (µm^3)
Blue greens (Cyanophyceae)												
Anabaena lemmermannii	44.8	46.9	24.3	0.0	6.5	1.4	4031	4220	2183	0	584	16
Pseudanabaena sp.	0.0	0.0	0.0	0.0	0.0	17.4	0	0	0	0	0	331
Greens (Chlorophyceae)												
Monoraphidium sp. / *Ankistrodesmus falcatus*	14	3	8	8	0	1	590	123	344	344	0	49
Stichococcus contortus	6	26	6	0	0	0	116	463	116	0	0	0
Botryococcus braunii (colonies)	0	0	0	0	0	1	54	31352	6431	26908	1608	156759
Elakotothrix gelatinosa	0	1	1	0	1	0	0	154	123	0	123	0
Eudorina elegans	0	6	0	0	0	0	75	1498	75	0	0	0
Crucigeniella sp.	0	0	0	1	0	0	0	0	0	76	0	0
Oocytsis sp.	2	10	2	0	2	1	332	1412	332	0	332	83
Westella botryoides	0	0	0	0	0	0	0	0	0	8	0	0
Diatoms (Bacillariophyceae)												
Asterionella formosa	12	23	32	12	3	4	3276	6552	8935	3276	819	983
Aulacoseira granulata	5	16	5	12	5	9	1484	4946	1484	3808	1632	2720
Cyclotella stelligera	2	6	2	5	1	1	340	936	340	749	94	94
Fragilaria crotonensis	4	10	39	1	1	1	1523	3427	14089	419	419	209
Nitzschia sp.	0	0	22	0	0	0	0	0	8442	0	0	0
Small unknown diatom sp.	0	0	0	0	1	0	0	0	0	0	64	0
Desmids (Mesotaeniaceae, Desmidiaceae)												
Closterium aciculare	0	1	0	0	1	0	105	701	105	0	350	4
Closterium acutum* var. *variable	0	1	2	2	0	0	0	221	662	662	0	22
Chrysophtya (Chrysophyceae)												
Dinobryon sp.	64	164	101	0	0	0	3797	9664	5971	0	0	0
Cryptomonas sp.	1	1	1	3	0	0	84	84	84	421	0	0
Dinoflagellates (Dinophyceae)												
Gymnodinium sp. 1	1	1	1	0	0	0	3191	3191	3191	0	0	0
Gymnodinium sp. 2	0	0	0	0	0	0	0	0	0	146	134	0
Flagellates 5µm												
Flagellates < 5µm/unicells	46	126	196	37	7	3	1619	4411	6850	1290	246	102

Lake Taupo phytoplankton species composition and biovolume (µm3) 2006-2007

From Site A (Mid Lake) 1/11/2006

Sample code	HW1	HW3	HW6	HW11	HW16	HW1	HW3	HW6	HW11	HW16
Depth	surface	20 m	50 m	100 m	150 m	surface	20 m	50 m	100 m	150 m
	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)
Species composition by class										
Blue greens (Cyanophyceae)										
Anabaena lemmermannii	63	25	0	0	0	3488.1	1367	25	15	0
Aphanocapsa sp.	0	0	2	3	0	0	0	14	31	0
Greens (Chlorophyceae)										
Botryococcus braunii (colonies)	0	0	0	0	0	5151	5901	7321	0	0
Chlorosarcinopsis sp.	3	0	2	2	0	259	0	182	208	0
Eudorina elegans	2	5	6	0	0	621	1198	1498	0	0
Kirchneriella contorta	5	4	0	0	0	176	116	0	0	0
Lagerheimia sp.	0	1	1	0	0	0	125	166	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	3	0	0	0	0	143	0	0	0	0
Oocytsis sp.	7	6	6	6	3	1034	872	831	831	415
Westella botryoides	0	0	7	0	0	0	0	0	0	0
Diatoms (Bacillariophyceae)										
Asterionella formosa	14	8	7	8	2	3806	2129	1884	2211	573
Aulacoseira granulata	63	54	49	47	54	19413	16866	15052	14689	16594
Aulacoseira granulata var. *angustissima*	0	0	2	3	0	0	0	456	837	0
Cyclotella stelligera	46	8	4	7	4	7301	1264	562	1123	655
Fragilaria crotonensis	5	0	2	8	3	1912	0	628	2723	1047
Nitzschia sp.	2	1	1	0	0	947	342	342	0	0
Desmids (Mesotaeniaceae, Desmidiaceae)										
Closterium aciculare	0	0	0	0	0	0	35	175	0	0
Closterium acutum var. *variable*	0	0	0	0	0	0	0	110	0	0
Chrysophtya (Chrysophyceae)										
Dinobryon sp.	8	4	6	0	0	458	242	362	0	0
Dinoflagellates (Dinophyceae)										
Gymnodinium sp. 1	0	1	0	0	0	0	2633	1316	0	88
Gymnodinium sp. 2	0	0	0	0	0	6068	0	0	0	0
Flagellates 5µm										
Flagellates < 5µm/unicells	50	19	31	23	4	1750	676	1085	788	143

Lake Taupo phytoplankton species composition and biovolume (µm3) 2006-2007
From Site A (Mid Lake) 2/04/2007

Sample code	HW17	HW18	HW19	HW22	HW27	HW32	HW17	HW18	HW19	HW22	HW27	HW32
Depth	surface	10 m	20 m	50 m	100 m	150 m	surface	10 m	20 m	50 m	100 m	150 m
	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	cell (per ml)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)	Biovolume (μm^3)
Species composition by class												
Blue greens (Cyanophyceae)												
Anabaena lemmermannii	36	65	56	0	2	0	1493	2655	2286	5	86	10
Greens (Chlorophyceae)												
Botryococcus braunii (colonies)	1	0	0	0	0	0	27630	0	0	41446	0	0
Monoraphidium sp. / *Ankistrodesmus falcatus*	49	17	17	0	1	0	2064	725	725	0	25	0
Oocytsis sp.	2	1	1	0	1	0	332	166	125	0	166	0
Stichococcus contortus	0	0	0	0	0	1	0	0	0	0	0	21
Diatoms (Bacillariophyceae)												
Asterionella formosa	0	0	1	0	0	1	0	82	246	0	0	164
Aulacoseira granulata	2	0	0	5	11	8	544	0	0	1541	3264	2630
Aulacoseira granulata var. *angustissima*	0	0	0	0	7	2	0	0	0	76	1901	608
Cyclotella stelligera	1	1	1	1	2	1	168	94	94	234	374	140
Eunotia sp.	0	0	0	0	4	0	0	0	0	0	0	0
Fragilaria crotonensis	0	0	0	0	0	1	0	0	0	0	0	209
Nitzschia sp.	2	0	1	0	0	0	799	114	228	0	0	0
Small unknown diatom sp.	0	0	0	0	1	0	0	0	0	0	64	0
Desmids (Mesotaeniaceae, Desmidiaceae)												
Closterium aciculare	0	0	0	1	4	0	0	0	0	350	2453	0
Closterium acutum var. *variable*	0	0	0	1	0	0	0	0	0	331	0	0
Chrysophtya (Chrysophyceae)												
Cryptomonas sp.	0	1	1	4	0	0	0	211	126	590	0	0
Dinobryon sp.	0	0	0	1	0	0	0	0	0	86	0	0
Dinoflagellates (Dinophyceae)												
Gymnodinium sp. 1	1	0	0	0	0	0	2106	878	878	176	0	0
Gymnodinium sp. 2	1	1	1	0	0	0	14625	21938	14625	0	0	0
Flagellates 5µm												
Flagellates < 5µm/unicells	185	97	84	127	16	10	6470	3389	2928	4433	573	338

Appendix 6. Historical data

Historical data held by NIWA have frequently been referred to and included in analysis or comparison with the data from the long-term monitoring programme. To ensure that these data are always readily available, the relevant historical data are included in this report. These data are the spring and autumn profiles of NO_3-N and DRP from 1974 to 1990. The nitrate data for 27 September 1979 was taken from Vincent (1983). The more recent data can be found in the previous appendices.

The profiles given are separated by season with the spring data above the data of the following autumn. The earlier profiles were to a depth of 110 m rather than 150 m. Also, as there was no March or April data collected in 1976, for completeness the last available profile in that series (12 January 1976) has been included.

The elapsed time given is the number of days between the spring profile in about October and the autumn profile in March/April of the following year.

The historical data also include an un-paired profile from July 1987. As there were no data for April 1987 and the lake was still stratified in July, when the next period of monitoring began, the July 1987 data may be used to indicate the total mass of nutrients accumulated in the hypolimnion in that year.

Historical data from Site A in Lake Taupo

Nitrate concentrations (mg m^{-3})

Spring Date	18/11/1974	16/10/1975	4/10/1977	10/10/1978	27/09/1979		5/10/1987	17/10/1988	6/10/1989
Depth (m)									
0	0.8	0.3	1.1	0.0	0.0		0.3	2.6	1.2
10	0.3	0.4	1.2	1.4	0.0		0.4	2.7	1.8
20	0.0	0.0	0.6	0.8	0.5		0.5	2.8	1.0
30	0.3	0.4	0.0	0.7	0.5		0.4	2.8	1.4
40	0.8	0.0	0.1	0.6	1.0		0.6	3.0	1.3
50	2.1	0.3	0.6	0.7	1.0		0.8	2.9	1.0
60	4.9	0.0	1.0	0.8	0.5		1.2	2.5	0.8
70	4.1	0.4	1.1	0.8	1.0		1.0	2.9	1.6
80	5.3	0.0	3.2	1.2	1.5		1.4	2.9	1.6
90	5.4	0.0	1.3	1.2	1.0		1.5	2.5	1.7
100	8.4	1.8	3.3	1.4	1.5		1.2	2.6	1.7
110	12.0	4.1	2.8	1.4	1.5		6.0	2.4	0.8
120			2.8	1.7	2.5		0.7	2.7	1.6
130			2.7	2.1	5.0		1.2	2.7	1.1
140			1.7	2.1	6.0		1.2	3.1	1.1
150			1.4	2.5	7.0		1.1	2.4	0.3

Autumn Date	14/04/1975	12/01/1976	14/03/1978	10/04/1979	10/03/1980	7/07/1987	5/04/1988	4/04/1989	10/04/1990
Depth (m)									
0	0.8	0.5	0.0	0.3	0.0	2.0	1.1	2.1	0.1
10	0.4	1	0.0	0.0	0.3	1.6	1.3	2.5	0.6
20	0.2	0.2	0.0	0.0	0.0	1.0	1.3	2.4	1.3
30	0.1	0	0.0	0.0	0.0	0.2	1.1	2.5	1.2
40	0.3	0.2	0.0	0.3	0.2	0.9	2.2	2.4	1.7
50	0.5	0.3	0.0	1.0	0.8	1.1	4.0	4.9	4.9
60	4.2	1.3	0.0	7.3	4.9	14.5	12.3	5.2	3.4
70	5.6	1.5	2.2	11.1	6.2	16.4	14.6	5.1	12.0
80	9.2	8.3	4.9	12.7	9.4	16.1	16.9	10.9	11.2
90	11.2	11.1	5.8	13.5	13.5	18.5	19.0	13.5	12.4
100	12.4	14	7.4	15.0	14.4	19.8	20.7	17.1	17.1
110	16.0		9.2	14.8	15.7	20.2	19.1	20.4	16.2
120			10.1	15.0	16.7	20.9	18.6	23.3	18.2
130			8.0	16.6	18.9	21.9	21.5	24.2	17.9
140			11.0	17.3	19.4	22.1	25.4	27.1	22.4
150			14.2	19.7	19.9	21.5	27.0	28.6	24.2

DRP concentrations (mg m^{-3})

Spring Date	18/11/1974	16/10/1975	4/10/1977	10/10/1978			5/10/1987	17/10/1988	6/10/1989
Depth (m)	???								
0	8.7	1.1	0.3	0.6			0.2	0.2	0.0
10	8.0	1.2	0.0	0.6			0.1	0.1	0.2
20	8.3	1.1	0.1	0.5			0.2	0.0	0.1
30	7.5	0.9	0.0	0.3			0.3	0.1	0.0
40	8.4	0.8	0.3	0.2			0.2	0.1	0.0
50	7.6	0.8	0.2	0.3			0.4	0.1	0.0
60	8.3	0.7	0.0	0.3			0.3	0.2	0.0
70	7.7	0.7	1.1	0.4			0.3	0.2	0.0
80	8.1	0.8	0.7	0.5			0.3	0.2	0.3
90	7.9	1.0	0.8	0.4			0.2	0.3	0.1
100	8.5	1.7	0.4	0.4			0.2	0.3	0.1
110	9.8	1.6	0.4	0.4			0.4	0.5	0.1
120			0.5	0.4			0.4	0.4	0.0
130			0.4	0.3			0.4	0.4	0.2
140			0.6	0.3			0.4	0.5	0.3
150			0.5	0.4			0.3	0.5	0.2

Autumn Date	14/04/1975	12/01/1976	14/03/1978	10/04/1979	10/03/1980	7/07/1987	5/04/1988	4/04/1989	10/04/1990
Depth (m)									
0	0.8	1.4	0.2	0.1	0.7	1.9	0.1	0.0	0.2
10	0.5	1.4	0.2	0.1	0.4	2.2	0.1	0.0	0.0
20	0.5	7.0	0.2	0.1	0.3	0.9	0.2	0.0	0.1
30	0.5	2.5	0.2	0.1	0.2	1.0	0.2	0.0	0.2
40	0.5	0.2	0.2	0.4	0.5	0.9	0.6	0.2	0.5
50	0.5	0.9	0.7	1.0	0.7	0.7	1.1	0.5	1.1
60	1.0	0.1	0.7	1.6	1.0	3.4	2.0	0.6	0.9
70	1.0	0.8	1.0	2.0	1.1	3.7	2.2	0.9	1.9
80	1.7	1.2	1.5	2.2	1.6	3.6	2.7	1.1	1.7
90	2.0	2.0	1.8	2.4	2.2	4.1	2.9	1.3	1.8
100	2.2	3.3	1.9	2.7	2.4	4.6	3.1	1.9	2.6
110	2.9		2.4	2.8	2.6	4.5	2.9	2.7	2.1
120			2.7	2.9	2.7	4.7	3.0	3.4	2.5
130			2.1	3.0	3.7	5.1	3.4	3.8	2.4
140			2.8	3.6	3.6	5.3	4.4	4.5	3.5
150			0.9	3.8	3.8	5.0	4.6	4.8	4.0

Elapsed period (days)									
	147	88	161	182	165	270*	183	169	186

??? = possible analytical problem (e.g., Si interference)

* = average period of 165 days plus 3 months