

# Lake Rotomahana

## INFOSHEET 8, DECEMBER 2017

*This information sheet has been prepared for Te Arawa whānau to summarise information about:*

- *research and monitoring occurring on Lake Rotomahana.*
- *projects occurring on, and adjacent to Lake Rotomahana, particularly efforts to reduce the impacts of land use on lake water quality.*

*It will be reviewed and updated annually.*

Monitoring Site  
Source: LAWA website



### NAME MEANING

Rotomahana means "warm lake". Prior to the Tarawera eruption, this lake comprised two smaller lakes - Lake Rotomahana (warm) and Lake Makariri (cold).

### AT A GLANCE

Lake size:	900 ha
Catchment area:	8370 ha
Elevation:	339 m
Average depth:	60 m
Deepest point:	125 m

### WATER QUALITY MONITORING

The Regional Council carries out regular monitoring of Lake Rotomahana:

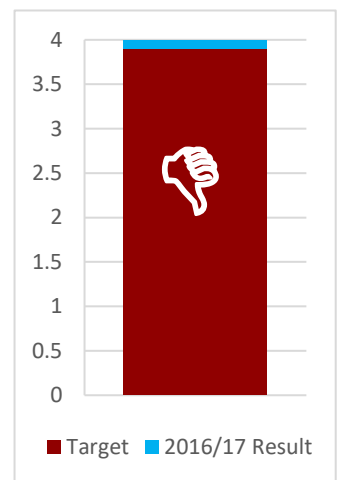
- **Scientific** – One site measured monthly for clarity, algae, phosphorous and nitrogen. Result articulated as an annual Trophic Level Index or TLI.

Swimming water quality is not monitored.

### WATER QUALITY STATUS

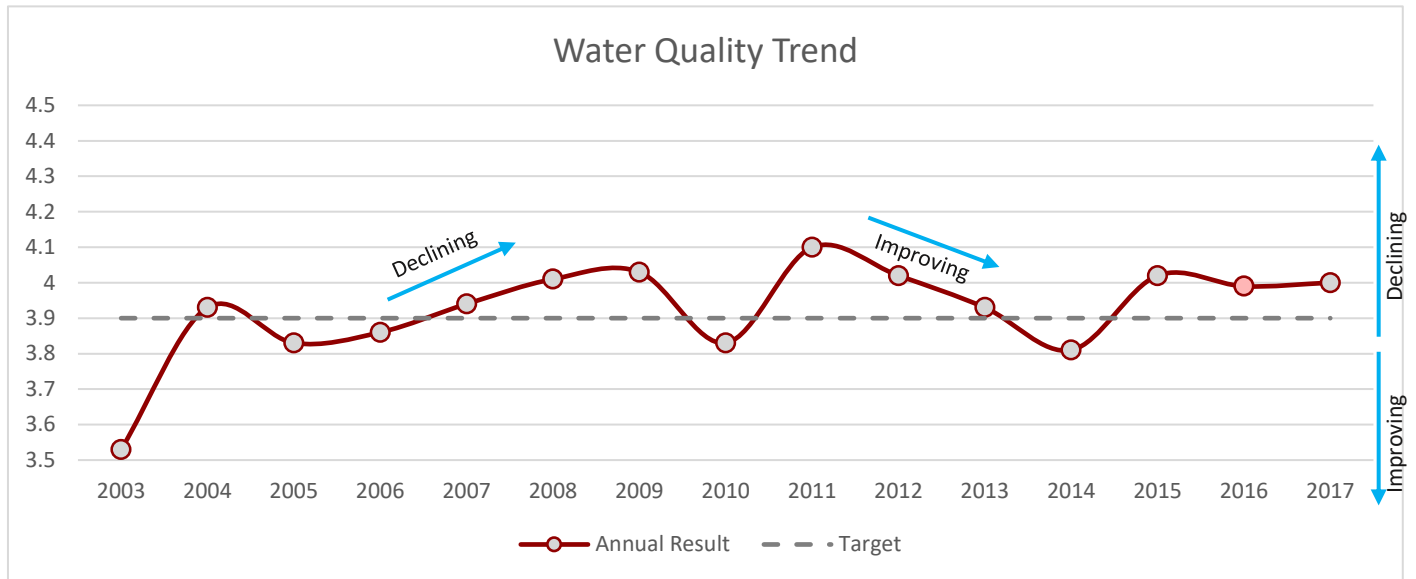
The Trophic Level Index (TLI) is used to give an overall picture of the health of Lake Rotomahana.

**TLI target not met.** For the 2016/17 year, the TLI was 4, just above the target of 3.9.



### WATER QUALITY TREND

Water quality within Lake Rotomahana has fluctuated over the last 13 years. The TLI has generally been stable, falling between 3.8 and 4.1.



### FISHERIES RESEARCH & MONITORING

Includes, but is not limited to:

Taonga fish species research, NIWA, 2007

- The status of kōaro is unknown
- Kākahi and kōura were not present

### TE ARAWA MONITORING

Te Arawa Lakes Trust is embarking on a project to measure and monitor the cultural health of Lake Rotomahana using indicators that are more meaningful to us. This may be based on the following:

- Can I swim here?
- Can I gather food here?

We will also continue working with Dr Ian Kusabs who monitors kōura populations in our lakes using tau (bracken fern bundles).

### LAKE ACTION PLANS

A lake specific Action Plan is not yet required for this catchment.

**Lake Tarawera Restoration Plan 2015** - Lake Rotomahana is also covered by the actions within the Tarawera Lakes Restoration Plan as it is one of the outer catchment lakes.

<http://www.rotorualakes.co.nz/vdb/document/1049>

### ACTION PLAN PROJECTS

Includes, but is not limited to:

Project	Status
Cultural Monitoring - measure and monitor the cultural health of Lake Tarawera and all lakes that feed into it, including Lake Rotomahana. This project will be led by TALT.	In planning

### WHERE TO FIND MORE INFORMATION

[www.tearawa.iwi.nz](http://www.tearawa.iwi.nz)  
[www.rotorualakes.co.nz](http://www.rotorualakes.co.nz)  
[www.lawa.org.nz](http://www.lawa.org.nz)

Te Arawa Lakes Trust  
 Rotorua Te Arawa Lakes Programme  
 Land Air Water Aotearoa