

# Lake Rotoiti

## INFOSHEET 6, DECEMBER 2017

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

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

*It will be reviewed and updated annually.*

### NAME MEANING

Lake Rotoiti, the shortened form of Te Roto-Whaiti-i-kite-ai-a-Ihenga-i-Ariki-ai-a Kahumatamomoe or "the small lake discovered by Īhenga".

### IWI

Ngāti Pikiao, Ngāti Te Takinga, Ngāti Hinerangi, Ngāti Tamateatutahi, Ngāti Kawiti, Ngāti Hinekura, Ngāti Rongomai, Ngāti Te Rangiuuora, Ngāti Makino.

### AT A GLANCE

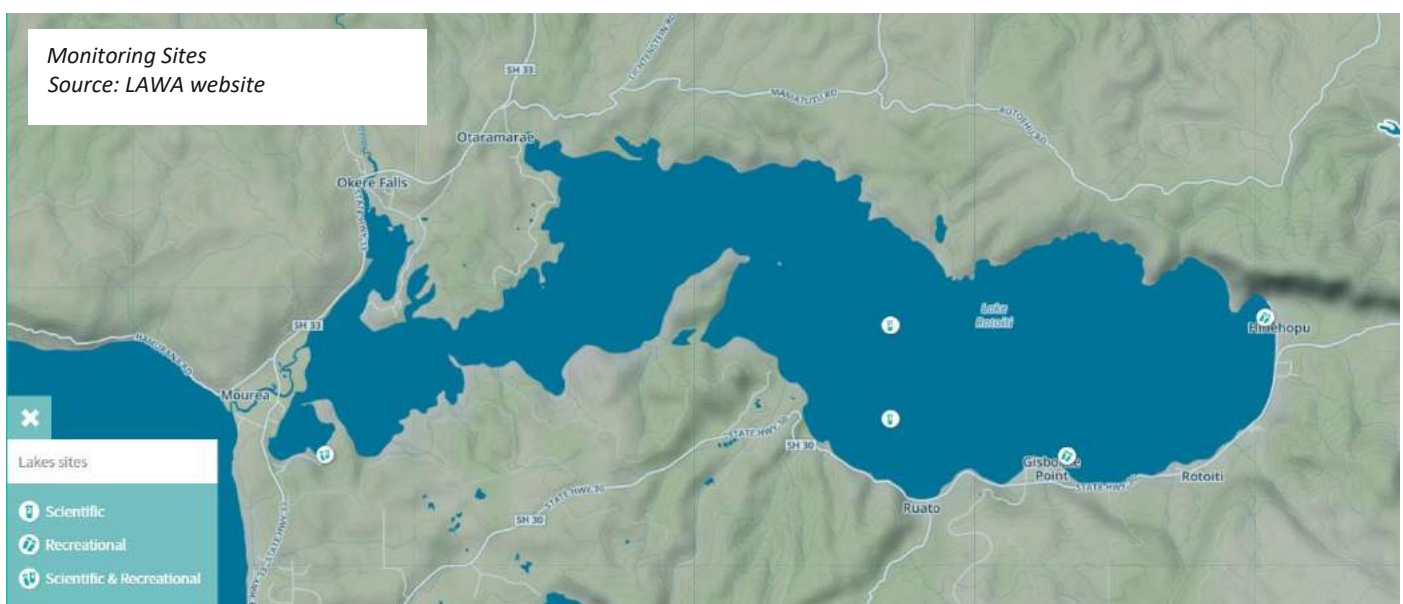
Lake size:	3400 ha
Catchment area:	12160 ha
Elevation:	279 m
Average depth:	31 m
Deepest point:	93.5 m

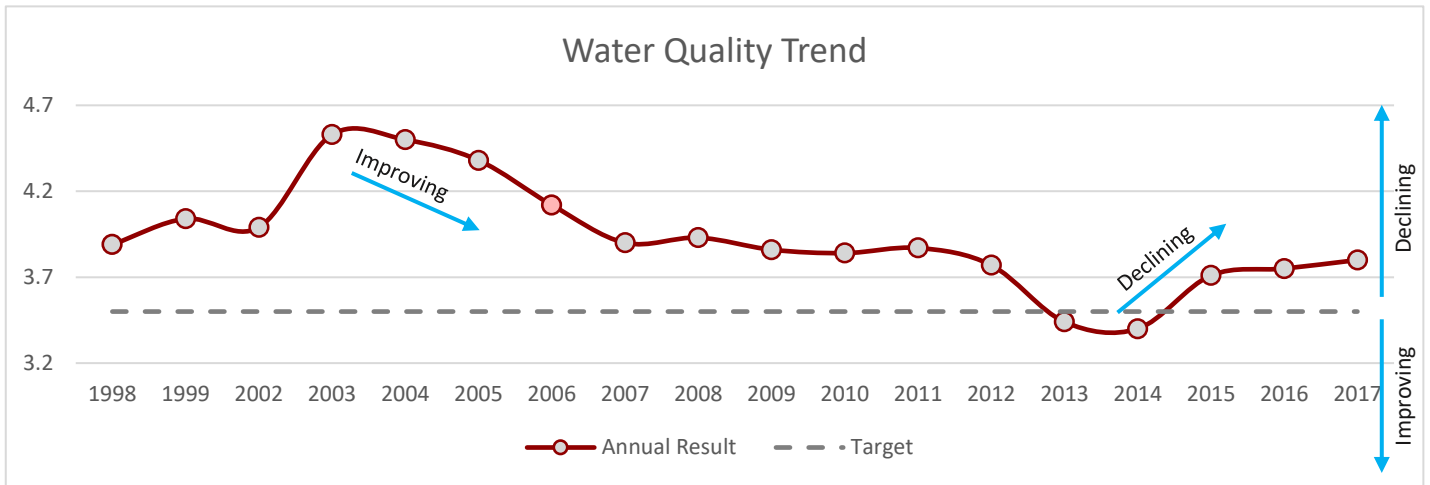
The eastern part of the lake sits in the north of the Ōkātina caldera (volcanic depression) and has geothermal springs. The western half – a drowned valley, Te Awa-i-Takapuwhaia – was formerly an outlet for Lake Rotorua.

### WATER QUALITY MONITORING

The Regional Council carries out regular monitoring of Lake Rotoiti. This includes:

- **Swimming water quality** – Three sites measured from October to June. Any health warnings are posted on the Regional Council and Toi Te Ora Public Health websites.
- **Scientific** – Three sites measured monthly for clarity, algae, phosphorous and nitrogen. Result articulated as an annual Trophic Level Index or TLI.





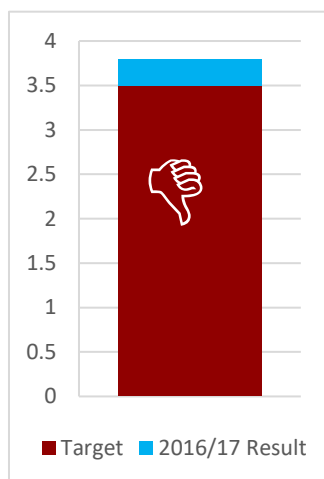
### WATER QUALITY TREND

Water quality has improved since 2004, reaching the target TLI on 2013 and 2014. Since then, water quality has not improved. Delays with sewerage reticulation means that further improvement can be expected to occur in the future.

### WATER QUALITY STATUS

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

**TLI target not met.** For the 2016/17 year, the TLI was 3.8, which is over the target of 3.5.



### TE ARAWA MONITORING

Te Arawa Lakes Trust is embarking on a project to measure and monitor the cultural health of Lake Rotoiti 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

#### Draft Lake Rotorua and Rotoiti Action Plan 2009 -

This Plan comprises 17 actions to improve the water quality in Lakes Rotorua and Rotoiti. It includes projects and actions for the regional council, district council and catchment landowners. Download from: <http://www.rotorualakes.co.nz/vdb/document/78>

### ACTION PLAN PROJECTS

Includes, but is not limited to:

Project	Status
Sewerage reticulation is in place for Mourea/Okawa Bay and Okere Falls/Otaramarae/Whangamarino.	Completed
Sewerage reticulation is proposed via a combined scheme for Rotomā and East Rotoiti (Gisborne Point and Hinehopu).	In progress
New Regional Council rules in place for septic tank discharges and other types of onsite wastewater treatment systems within lakes catchments.	Completed
Ohau Channel Wall – Impact Monitoring Kōura, kākahi, smelt and trout monitoring has also been carried out to look at the long-term effects on the wall. Information sheet: <a href="http://www.rotorualakes.co.nz/vdb/document/300">http://www.rotorualakes.co.nz/vdb/document/300</a>	Ongoing

### 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