



Water Level: Lake Rotomā and Rotoehu

Andy Bruere, Lakes Operations Manager, BOPRC

May 2023



Lake Rotoehu: area 8.1 km²

Elevation: 295m

Records from 1953

No surface outlet

Fluctuates over 5m range

Highest recorded level: 1971: 296.967m

Lowest recorded level: 1994: 292.55 m

Lake Rotomā: 11.2 km²

Elevation: 316m

Records from 1953

No record of surface over flow

Fluctuates over 5.5 m range

Highest recorded level: 1971: 317.734m

Lowest recorded level: 1994: 312.20 m

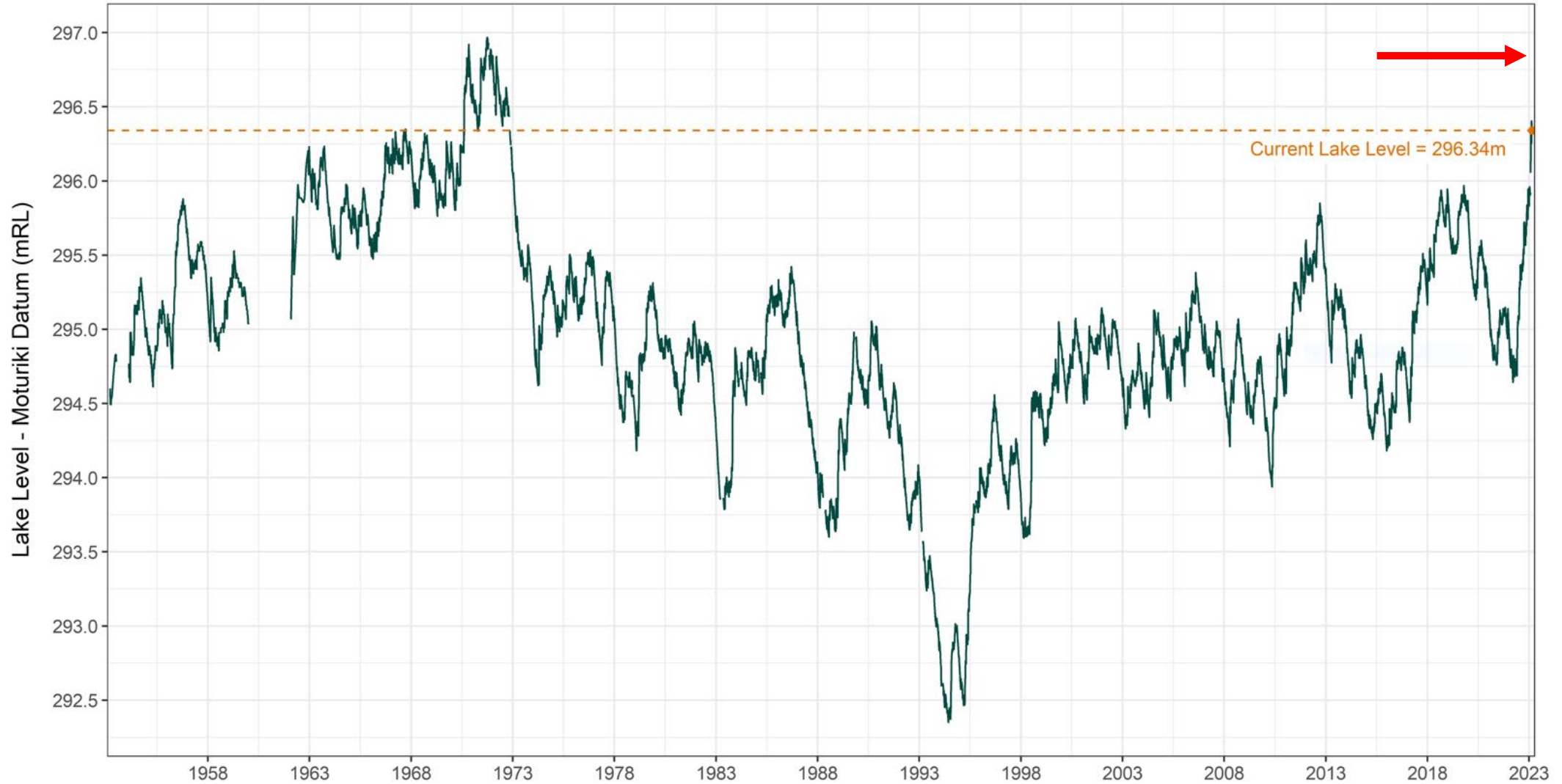
In 1971 Lake Rotomā came within 500mm of the overflow saddle
On 24 May 2023, lake is within 710mm of overflow saddle
Could start to flow naturally to Lake Rotoehu, if it rises another 710mm



16 May 2023: Level 296.683m

Lake Rotoehu* Daily Mean Lake Level - Full Record

As at 26 Feb 2023



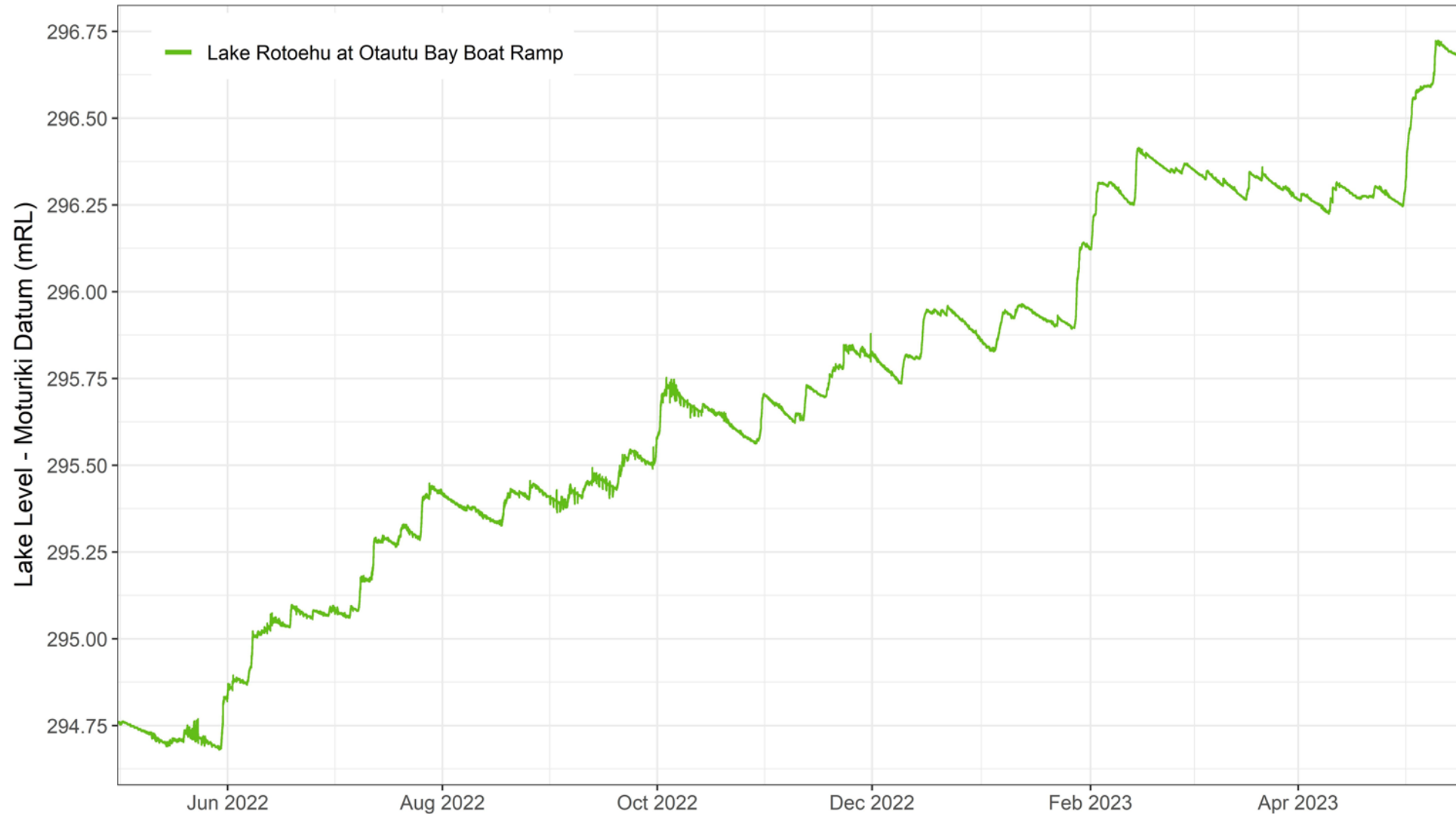
16 May 2023

*Rotoehu Lake Level recording site changed from Te Pohue Bay to Otautu Bay Boat Ramp on 29th Oct 2020

Lake Rotoehu level last 12 months: 2m rise

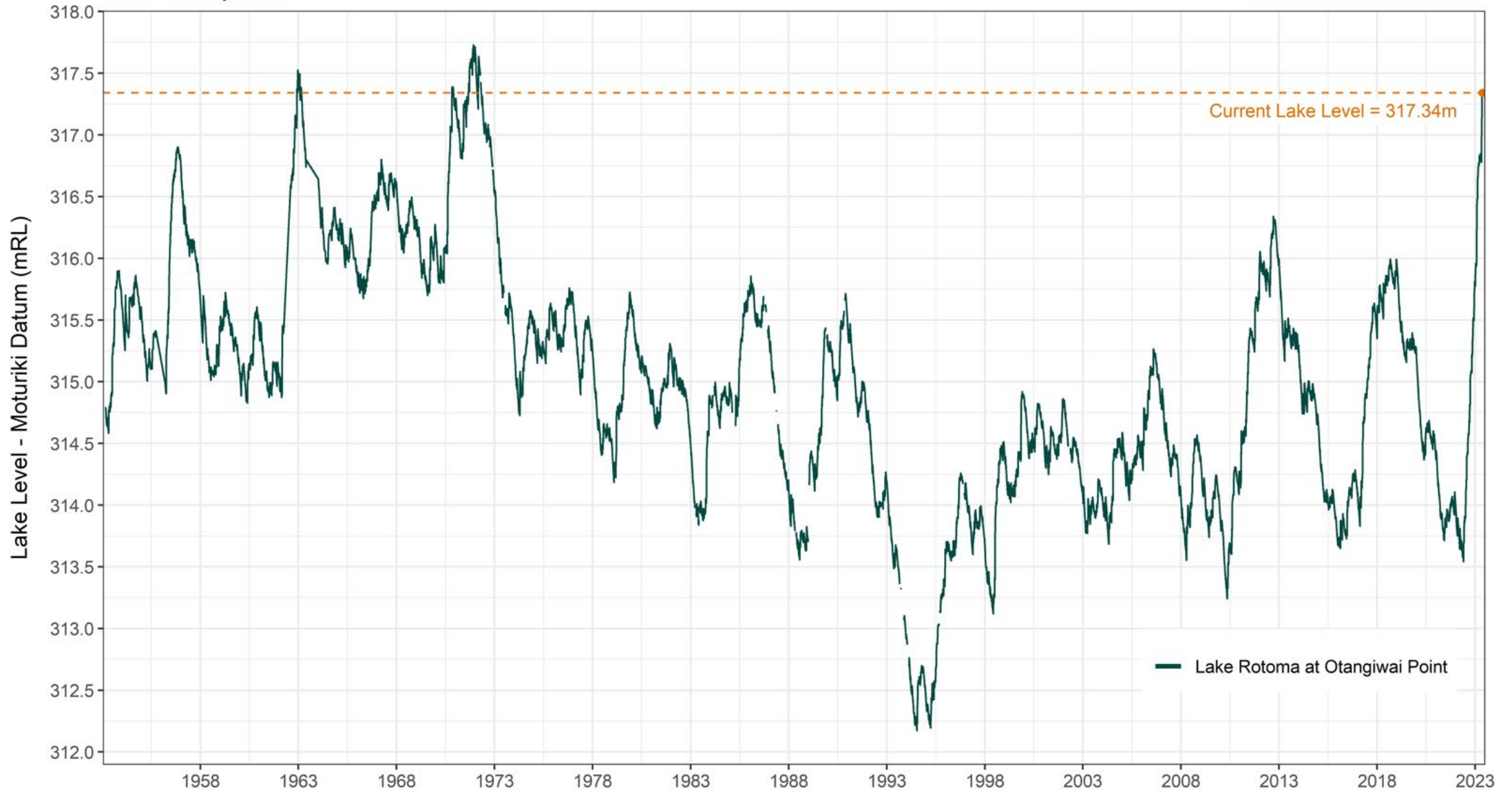


Lake Rotoehu - Lake Level from May 2022



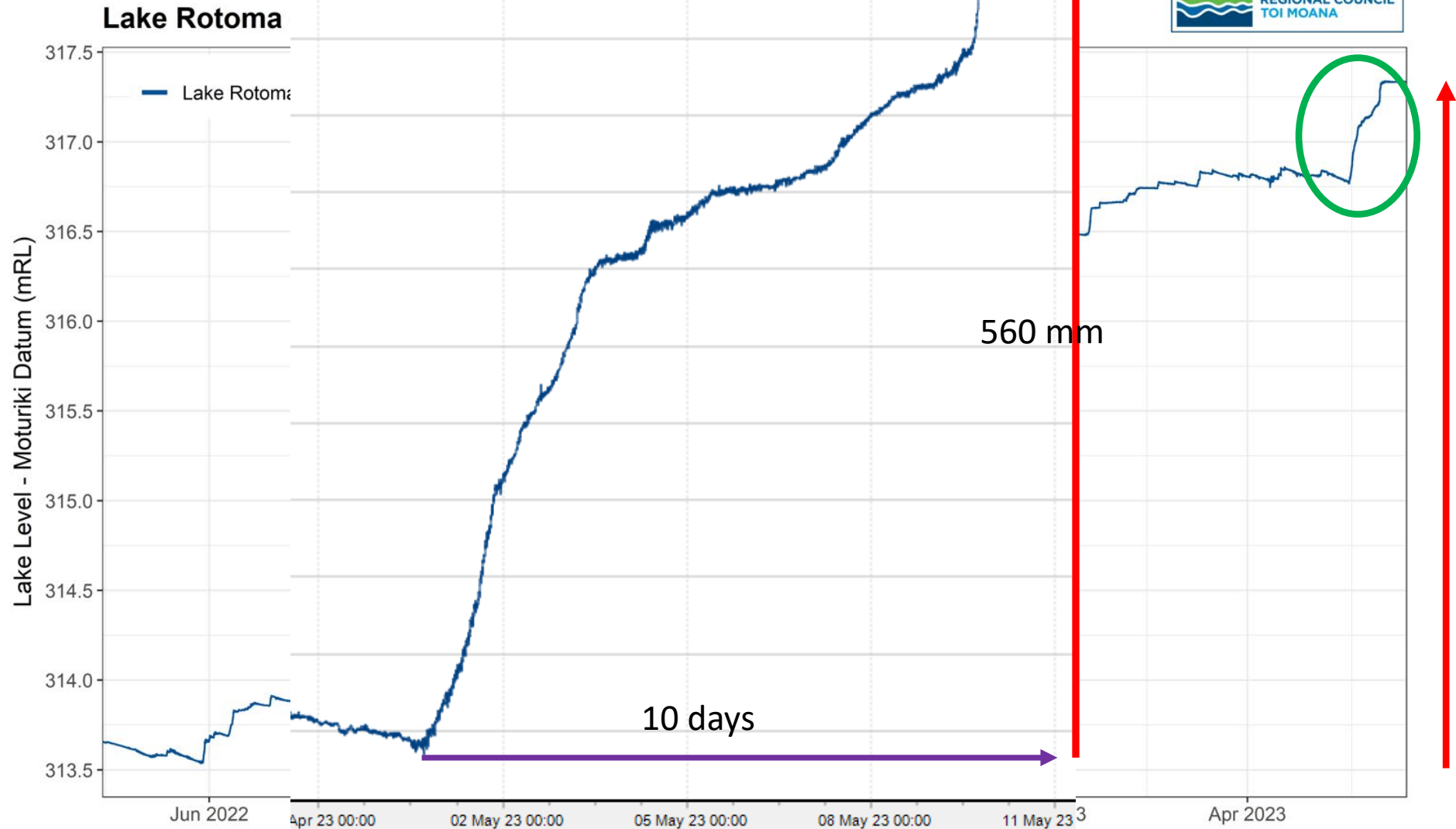
Lake Rotoma at Otangiwai Point - Daily Mean Lake Level - Full Record

As at 16 May 2023



Latest Sample DT	Value	Quality	Comment
17/05/2023 6:00:00 a	317.352 metres	Import	

Rotomā last 12 months: ab



Rainfall - Monthly Totals

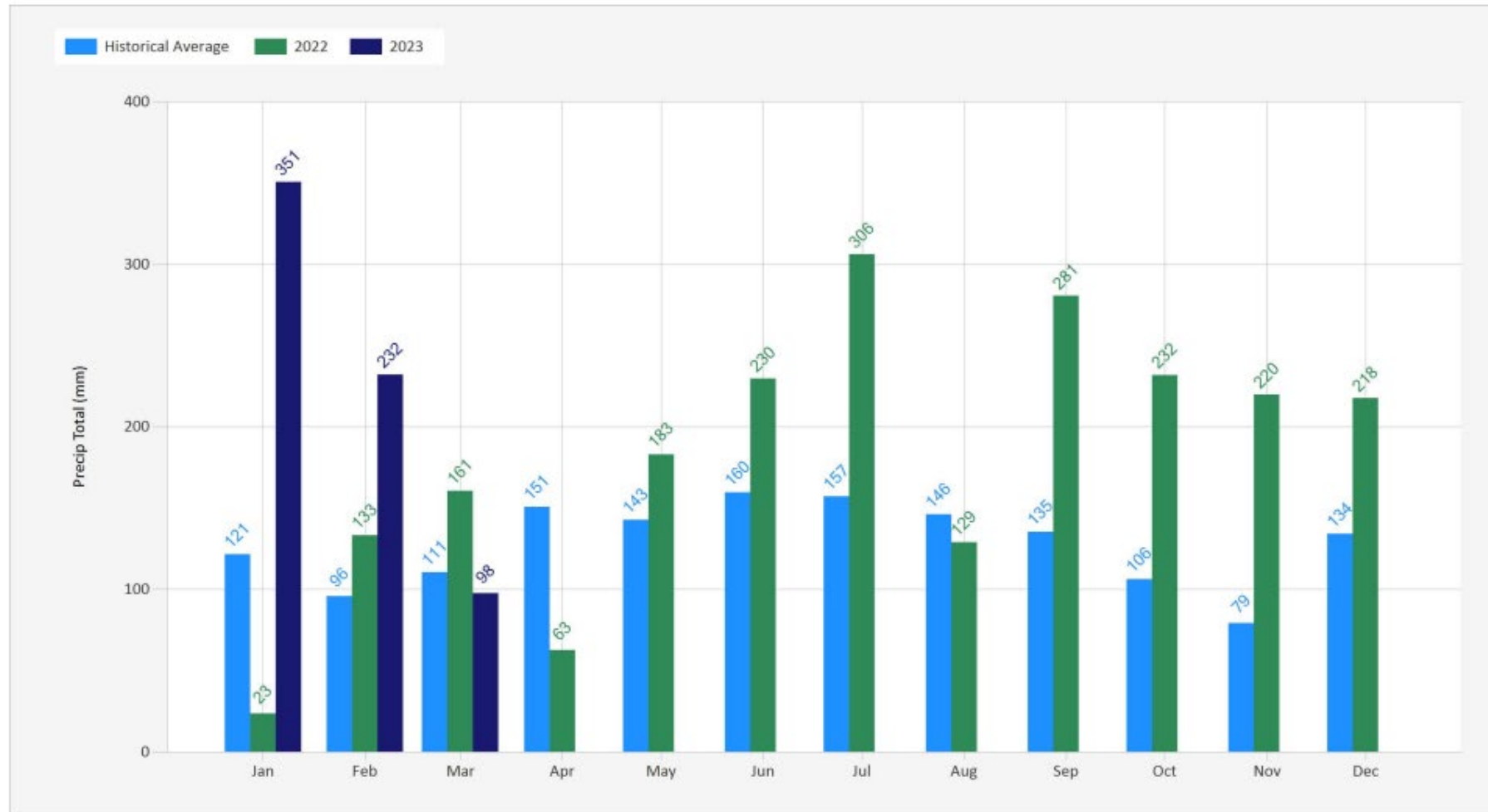
Rainfall.Monthly Rainfall Report.Rotorua Lakes.Lake Rotoiti at Okawa Bay

Apr 16, 2023 | 1 of 1

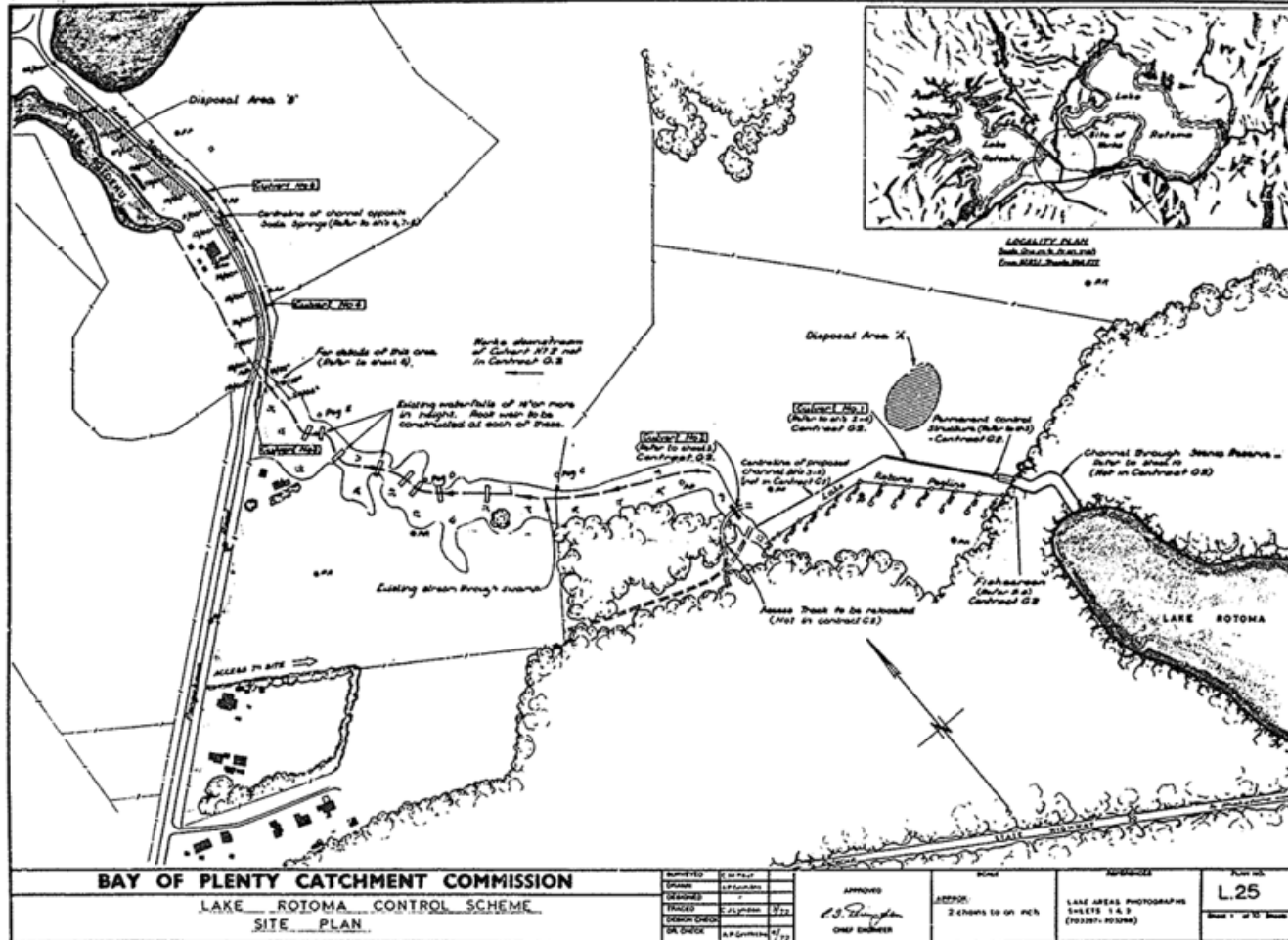
Period Selected: Entire Record

Source Data: Precip Total.Primary@FL289316, Lake Rotoiti at Okawa Bay
UTC Offset: +12:00, Start Time: 2007-02-15 12:30:00, End Time: 2023-04-16 23:30:00

Units: mm
Data Coverage Threshold: 80%



Lake Rotomā outlet



Lake Rotomā outlet

1 Purpose

1.0 For control of high lake levels and flooding at Lake Rotoma.

2 Maximum Rate (cumecs)

2.0 0.849501 cumecs

3 Map Reference

3.0 Diversion: N77:012152
Discharge: N77:005165

4 The Regional Water Board

4.0 The Regional Water Board reserves the right to review and if deemed necessary, vary or revoke the right granted if it considers that the rights or interests of lawful users of Water pursuant to Section 21(1) of the Water and Soil Conservation Act 1967 or notified lawful users of water pursuant to Section 21(2) of the said Act or where existing or future rights granted under Section 21(3) and or 24 of the said Act would be or are being materially affected or prejudiced by the continued operation of the right.

5 The Right

5.0 The Right hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation or Bylaw.

6 This Right

6.0 This Right shall not be exercised until such time as the levels of Lake Rotoehu are under control.

Lake Rotomā outlet

The Director,
National Water and Soil Conservation Organisation,
Ministry of Works,
Head Office,
WELLINGTON.



For attention H. R. Thorpe, Esq.

Dear Sir

PROPOSED DIVERSION OF WATER FROM ROTOEHU INTO ROTOITI

At their meeting of 30 May 1973, the Officials Committee on Eutrophication considered the points raised in your letters of 19 December 1972 and 19 February 1973. Reports were also available from the Ecology Division of D.S.I.R., Fisheries Research Division of MAFF., and Wildlife Branch of the Department of Internal Affairs.

No firm recommendation could be offered by the Committee at this time, and I was directed to arrange for the collection of additional information on two points.

- (1) Information is required about the algal floras of Rotoehu and Rotoiti. The Botany Department of Auckland University have undertaken to investigate this as a matter of urgency.
- (2) Information is required about the extent to which water movement between the eastern and western parts of L. Rotoiti is restricted.

See report of 1973
1973

The Committee also asked for clarification of your comment about ecological drawbacks connected with the division of water down the Pongakawa or Waitahanui Streams.

The Committee meets again in about five months. If decisions by your organisation become imminent I will endeavour to call another meeting if new information is available, or alternatively will seek permission to release such information as is available so that you can be as fully informed as possible.

Yours faithfully,

E. White
Secretary

Officials Committee on Eutrophication

SKH.

Lake Rotomā outlet

LAKE ROTOEHU

Following the decision of the Regional Water Board to issue a water right to the Commission to discharge water from Rotoma subject to first providing for control of the level of Lake Rotoehu, it is now apparent that the two lakes can not be considered independantly but must be combined to form one comprehensive scheme. The next important step to be made is to decide on the most suitable proposal for control of Lake Rotoehu. To date the following preliminary proposals have been investigated by Messrs Murray-North.

- (1) Gravity to Waitahanui Stream
- (2) Gravity outlet to Lake Rotoiti via Hongi's track
- (3) Gravity to Pongakawa Valley
- (4) Pumping to Lake Rotoiti.

Only one of these proposals the tunnel to the Waitahanui stream was considered in any detail.

The Commission has also looked into several proposals.

- (1) Open cut and backfill to Waitahanui Stream.
- (2) Gravity to Lake Rotoiti keeping outside the Scenic Reserve.
- (3) Purchase an area of land adjacent to Lake Rotoehu and allow Lake Rotoehu to be used as a ponding area.

It is now proposed to consider these proposals in turn and outline the advantages and disadvantages that relate to each of them and following a discussion of the relative merits to make a firm recommendation.



Recent scenes from our staff visiting the community to assess lake levels and talk to community members



Rotorua Te Arawa Lakes without surface outlets: 12 month record



Combined Lakes - Lake Levels from May 2022

