

# **Te Waikai Otaota: Te Mahere Nui**

## **Spray plan 1 for Te Arawa Lakes Aquatic Weed Management 2026**

**Koheri ra! Kohera e!  
Tutapa mai nuku, tutapa mai whiti  
Kia rongo te pō, kia rongo te ao  
Kia pā tata mai tō hau manawa  
Ki tōku aronga manawa  
Hai puta ki te whai ao, ki te ao mārama  
Tihē Mauri Ora!  
*Toitū te wai,  
toitū te whenua,  
toitū Te Arawa***

### **Ngā Tono Whakarite | *Resource consents***

- **68367-AP** (Bay of Plenty Regional Council, Land Information New Zealand)
- **RM16-0520-AP** (Bay of Plenty Regional Council)

### **Te Waikai Otaota | *Te Arawa Lakes Treatment Areas***

**Te Tukunga Waikai Otaota** Aquatic weed control operations will be taking place intermittently between the 18<sup>th</sup> of May and the 30<sup>th</sup> of June 2026 on Lake Rotoiti, Lake Rotomā, Lake Ōkātaina, Lake Ōkāreka and Lake Tarawera using the herbicide Diquat Dibromide, weather permitting.

Aquatic weed control operations will be taking place intermittently between the 1<sup>st</sup> of August and the 30<sup>th</sup> of October 2026 on Lake Rotorua, weather permitting.

**Anō Pea Te Tukunga Waikai Otaota:** Follow up treatment may be applied following this period depending on the results of the initial treatment.

**Ka Rāhui Tēnei Takiwā o Te Moana:** A rāhui on the area of control prohibiting swimming, taking food, and collecting drinking water will be in place for 24 hours following control operations.

**Ka Whakatūria Ngā Pou Whakamōhio:** Signage will be erected during this time to ensure all lake users are aware of this rāhui.

**Table 1.** Treatment areas and proposed dates of control for each lake.

Lake	Treatment area (ha)	Treatment area as a percentage of lake area (%)	Application method	Proposed date range
Rotorua	181	2.27	Boat	1 August – 30 October
Rotoiti	45.42	1.34	Boat	18 May – 30 June
Rotomā	1.57	0.14	Boat	18 May – 30 June
Ōkātina	0.88	0.08	Boat	18 May – 30 June
Ōkāreka	26.26	7.72	Boat	18 May – 30 June
Tarawera	8.20	0.19	Boat	18 May – 30 June

## Te Takiwā | *Timing of operations*

The specific timing of operations within each season is dependent on wind, water and weather conditions. Preferred date ranges for each season will be included in each spray plan and provided to the public via methods outlined in the Communications Plan (Appendix 1).

In some cases, follow up control works may be required. Following herbicide application, a 14-day stand-down period will be implemented before further control works can proceed.

Control operations will not occur on any weekend, public holiday or during school holidays to ensure the programme does not impede upon the use and enjoyment of our lakes.

## Ngā Herenga | **Consent conditions**

### Ngā Tikiwai | *Water takes:*

Consented water takes will be notified via methods outlined in the Communications Plan (Appendix 1) prior to control works. All landowners adjacent to control sites and within a 200-metre buffer zone around each site will be notified prior to control works via letter to ensure landowners can take appropriate action.

### Ngā Wharau a Ngā Manu Taketake | *Areas of native bird roosting or breeding:*

During pre-spray monitoring a thorough investigation of each site is conducted and any notable areas of bird life recorded. These reports and any others from the community are taken into consideration alongside recommendations from the Department of Conservation to ensure roosting and breeding sites are undisturbed.

### **Ngā Wāhi Tapu | Sites of significance to mana moana:**

Several sites are considered for control operations each year due to their significance to mana moana, such as wāhi tapu, mahinga kai and papakāinga. These sites can be added to or omitted from the programme upon request from mana moana.

### **Ngā Karere | Notification:**

All practical steps will be taken to ensure that the community, including the Rotorua Lakes Council, the Medical Officer of Health, iwi with mana whenua, landowners and occupiers adjoining or adjacent to areas to be sprayed, and the public are aware of control operations and subsequent rāhui and provided with contact information to discuss any queries or concerns. The methods used to undertake this notification process can be found in the Communications Plan (Appendix 1).

### **Ngā Herenga Otaota | Current weed conditions:**

Pre-spray monitoring survey is undertaken in the weeks prior to spraying to determine if weed and water conditions are suitable for herbicide application. Conditions such as high turbidity, algal fouling of weed beds and algal blooms in the water column reduce herbicide efficacy, and if a site is deemed unsuitable for herbicide application at this time it is omitted from control operations for this period. Lakes monitored and weed species present in each lake are listed in table 2.

**Table 2.** Priority lakes for aquatic weed control and the weed species they contain.

<b>Lake</b>	<b>Lake size (Hectares)</b>	<b>Weeds present</b>
Rotorua	7980	<i>Ceratophyllum demersum</i> , <i>Egeria densa</i> , <i>Lagarosiphon major</i> , <i>Elodea canadensis</i>
Rotoiti	3400	<i>Ceratophyllum demersum</i> , <i>Egeria densa</i> , <i>Lagarosiphon major</i> , <i>Elodea canadensis</i>
Rotoehu	800	<i>Ceratophyllum demersum</i> , <i>Elodea canadensis</i> , <i>Lagarosiphon major</i>
Ōkātina	1080	<i>Lagarosiphon major</i> , <i>Elodea canadensis</i>
Ōkāreka	340	<i>Lagarosiphon major</i> , <i>Elodea canadensis</i>
Tarawera	4130	<i>Ceratophyllum demersum</i> , <i>Egeria densa</i> , <i>Lagarosiphon major</i> , <i>Elodea canadensis</i>
Rerewhakaaitu	530	<i>Lagarosiphon major</i> , <i>Elodea canadensis</i> , <i>Egeria densa</i>

During pre-spray monitoring, scientific divers make observations regarding a number of factors to determine whether or not a site should receive aquatic weed control at this time. Factors such as weed growth, weed condition, sedimentation, algal blooms and lake levels are all taken into account when deciding where and when aquatic weed control should take place. These decisions are made by the Te Arawa Lakes Aquatic Pest Coordination Group which features representatives from the following organisations; Land Information New Zealand, Department of Conservation, Fish and

Game, Earth Sciences NZ (NIWA), Bay of Plenty Regional Council, Rotorua Lakes Council and Te Arawa Lakes Trust.

In Lake Rotorua, scientific divers noted a persistent algal bloom which will impact the efficacy of aquatic herbicide. Due to this persistent algal bloom, aquatic weed control on Lake Rotorua has been scheduled for late winter when conditions will be reassessed.

Divers observed an increase in invasive *Lagarosiphon major* growth in Lake Ōkāreka, posing a great threat to the progress made in recent years to increase native aquatic plant biodiversity within this lake. Due to this increase in *Lagarosiphon major*, control will be undertaken across the entire lake margin to protect native biodiversity.

In Lake Ōkātaina, no *Ceratophyllum demersum* was observed at any surveyed control sites, signifying the success of previous control works undertaken. Due to this success, the following sites in Lake Ōkātaina have been omitted from control operations for this period; Log Pool Stream, Otangimoana Bay, Ōruaroa Bay, Kaikākahi Bay, Motuwhetero, Haumingi Bay and Paremata Bay.

In Lake Tarawera, good results from previous control operations have resulted in the following sites being omitted from control operations due to minimal invasive aquatic weed growth; Kariri Point/Boatshed Bay, Stoney Point and Punaromia/The Landing.

In Lake Rotoiti, fouling and sedimentation as well as algal blooms resulted in the following sites being omitted from these operations; Okere Arm, Teal Bay, Te Tī Bay, Kakaho Bay, Hauparu Bay, Tapuaekura Bay, Tokerau Bay, Wairau Bay, and Te Ārero Bay.

Lake Rotoehu was found to be unsuitable for aquatic weed spraying due to heavy fouling, lake depth, algal blooms and the overall intensity of aquatic weed infestations within the lake.

#### **Ngā Pou Ārahi | Cultural Monitoring Plan:**

Alongside these control works, cultural monitoring is undertaken before and after control works to evaluate the impact of operations on taonga species and the mauri of our lakes. The purpose of the Cultural Monitoring Plan is to ensure that the values of Te Arawa associated with the lakes are identified and monitored alongside the activity of aquatic weed management.

#### **Ngā tino wāhi | Priority control areas:**

**Table 3.** Total proposed treatment area for each lake and the percentage of the littoral zone this occupies.

Lake name	Treatment area (ha)	Littoral zone (ha)	Treatment area as a percentage of littoral zone (%)
Rotorua	181	2213	8.18
Rotoiti	45.42	800	5.68
Rotomā	1.57	342	0.46
Ōkātaina	0.88	304	0.29
Ōkāreka	26.26	102	25.75
Tarawera	8.20	543	1.51

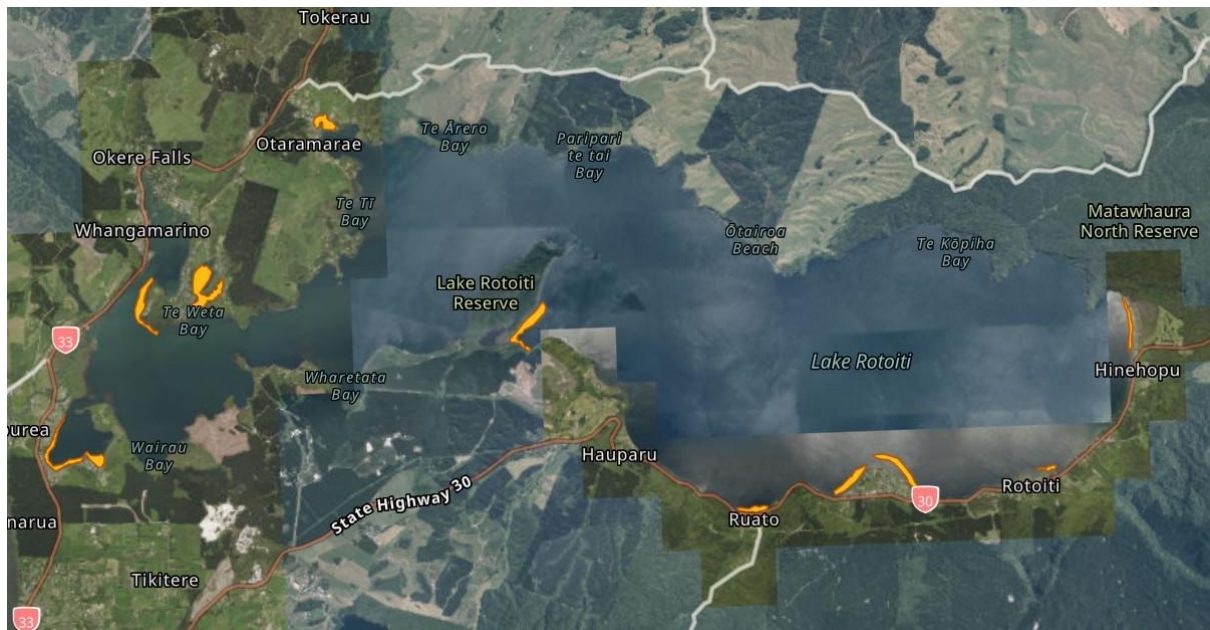
# Ngā tino wāhi | *Priority control sites*

## Rotorua



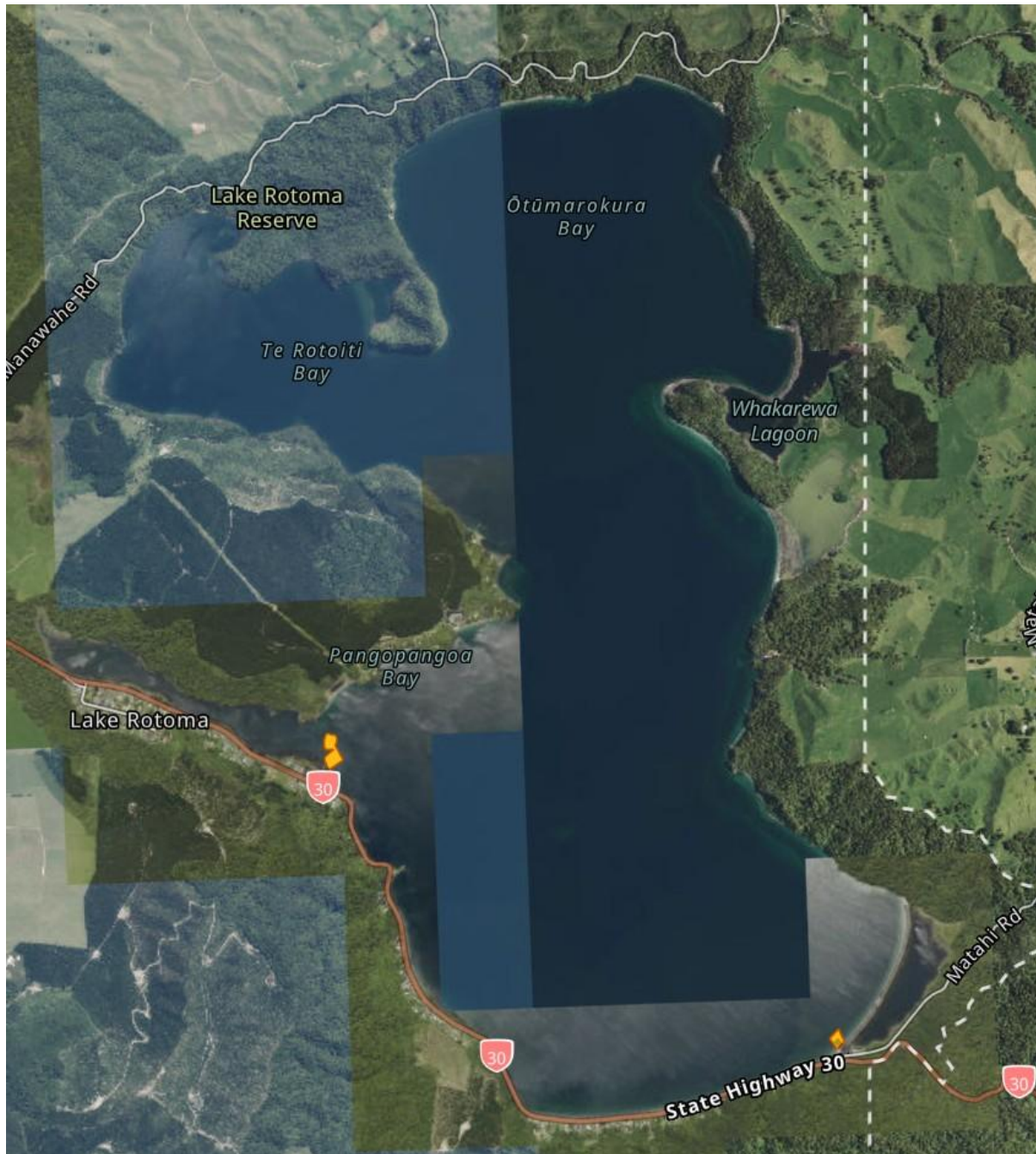
Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range for spray
Kawaha Point	181	Boat	1 August – 30 October

# Rotoiti



Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range for spray
Punawhakareia Bay (Gisborne Point)	9.46	Boat	18 May – 30 June
Te Ruatō Bay	2.12	Boat	18 May – 30 June
Ōkahutoroa Bay (Cherry Bay)	6.1	Boat	18 May – 30 June
Ōkawa Bay	6.56	Boat	18 May – 30 June
Te Weta Bay	10.7	Boat	18 May – 30 June
Ōtaramarae Boat Ramp	2	Boat	18 May – 30 June
Te Waiiti Stream	0.76	Boat	18 May – 30 June
Te Akau Peninsula	5.39	Boat	18 May – 30 June
Hinehopu	2.33	Boat	18 May – 30 June

# Rotomā



Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range
Merge lodge Boat Ramp	1.14	Boat	18 May – 30 June
Matahi Boat Ramp	0.43	Boat	18 May – 30 June

# Ōkātaina



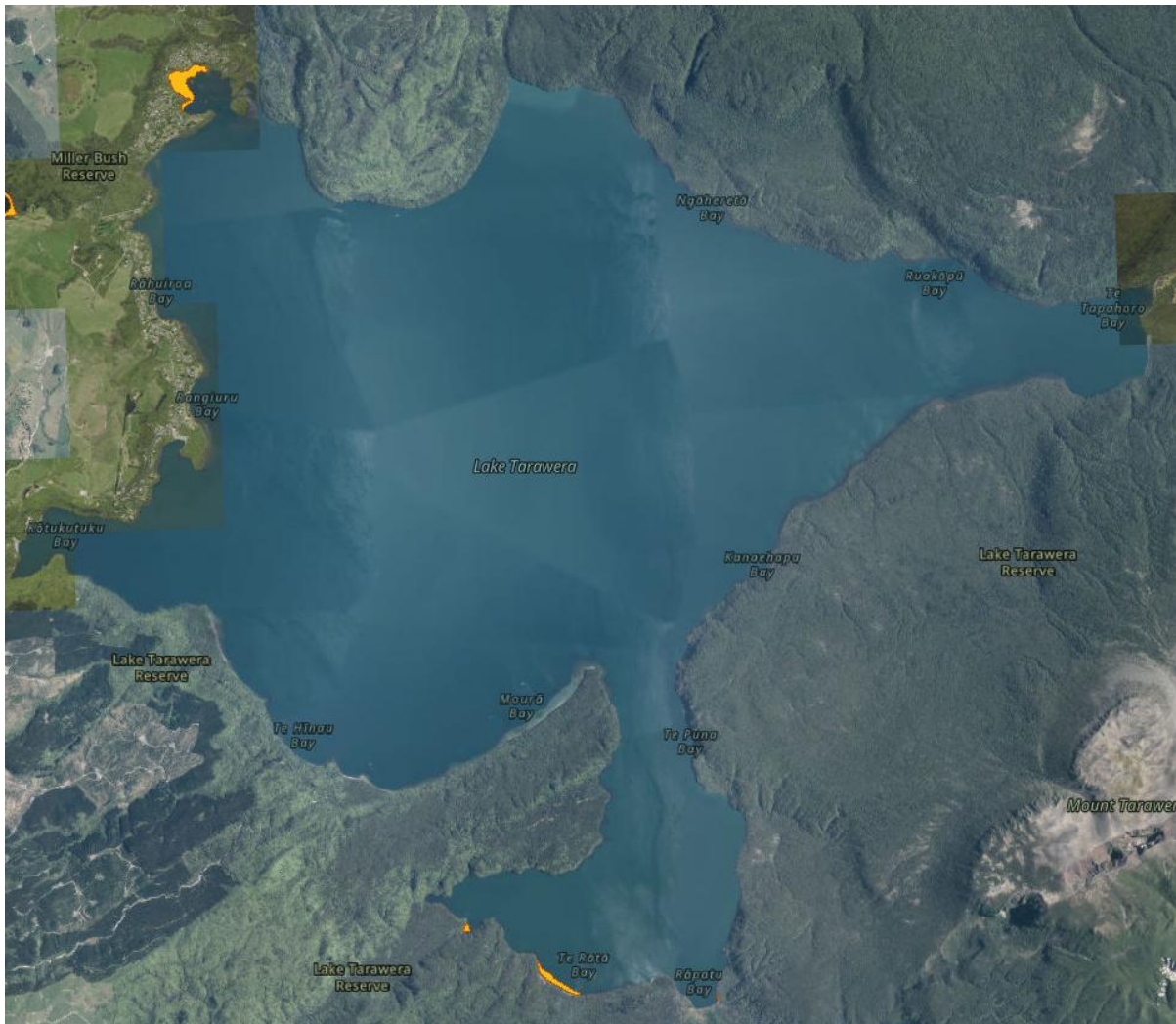
Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range for spray
Tauranganui Bay/Boat Ramp	0.88	Boat	18 May – 30 June

# Ōkāreka



Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range
Lake Margin	26.26	Boat	18 May – 30 June

# Tarawera



Site name	Treatment Area (Hectares)	Application Method	Preferred Date Range
Ōtūmutu Lagoon	5.64	Boat	18 May – 30 June
Te Rātā Bay (Hot Water Beach)	2.1	Boat	18 May – 30 June
Wairua Pool	0.36	Boat	18 May – 30 June
Rāpatu Bay	0.1	Boat	18 May – 30 June

# Te Āpiti 1 | Appendix 1:

## Whakapāpā | Communications Plan

Kua tuhia tēnei mahere whakapāpā e ai tā te Tono Rauemi 68367-AP i whakaaetia e Te Moana a Toi, mō te whakarehunga otaota ki te waikai e kī nei ko Diquat Dibromide, ki ngā rotomoana o Te Arawa.

This communications plan is written in accordance with Resource Consent 68367-AP granted by Bay of Plenty Regional Council for the purpose of controlling aquatic weeds with Diquat Dibromide across Te Arawa Lakes.

### Aratakinga Whakapāpā | Communication objectives

- Engage with stakeholders and audiences to notify them of aquatic weed control works and use this as an opportunity to empower lake users with information about invasive lakeweeds and aquatic weed management.
- Provide a clear pathway for lake users to enquire about operations. Follow up on enquiries and supply sufficient information to ease any concerns.
- Ensure relevant audiences are informed of aquatic spraying operations including location and timing of proposed spraying and withholding period or rāhui for taking of water, swimming, and taking of fish for consumption.
- Comply with resource consent conditions.

### Te Ara Tukutuku | Delivery partners and target audiences

- Target audiences are broken down into four categories:
  - **Mana whenua:** iwi and hapū who hold mana whenua status over spraying areas and/or have wāhi tapu or māhinga kai within spraying areas.
  - **Adjacent landowners:** public and private landowners adjacent to spraying areas.
  - **Business owners:** parties with economic or resource interests in spraying areas, including tourism operators and consent holders.
  - **Community groups:** community associations, schools, recreational lake users and any other parties which have an interest in the spraying area including visitors to the area.
- **Ngā Hoa Tāpui | Delivery partners**
  - Bay of Plenty Regional Council (BOPRC)
  - Toitū Te Whenua Land Information New Zealand (LINZ)
  - Te Arawa Lakes Trust (TALT)
  - Rotorua Lakes Council (RLC)
  - Department of Conservation (DOC)
  - Fish and Game (F&G)
  - National Institute of Water and Atmospheric Research (NIWA)
  - AquaAg Ltd.
  - Medical Officer of Health ([enquiries@toiteora.govt.nz](mailto:enquiries@toiteora.govt.nz)). To be informed of proposed spray works and of any poisoning events and/or environmental contamination.

### Kupu Matua | Key messages

- Aquatic weed spraying will be occurring in \_ area on \_ date.
- A 24-hour rāhui or stand down period applies for swimming, taking of water and taking of fish for consumption.

- Invasive lakeweeds are a particular problem in Te Arawa rohe due to their ability to form large dense weed beds that have a negative impact on the lake ecosystem including our native species.
- Spraying invasive lakeweeds with the herbicide Diquat is a safe and effective way of suppressing these invasive lakeweeds based on current research and when used correctly it has no adverse effects on native species or humans.
- Consent has been granted by BOPRC to discharge the herbicide diquat into waterbodies for the purposes of controlling aquatic weeds.
- Any questions or comments concerning these matters can be directed to Te Arawa Lakes Trust via [aquaticweed@tearawa.iwi.nz](mailto:aquaticweed@tearawa.iwi.nz)

## Te Aronga | Approach

Engagement will occur at three levels:

1. **Notify target audiences** via **letter and/or email** detailing the location and timing of proposed spraying dates and rāhui information about taking of water, swimming, and taking of fish for consumption, and contact details for TALT. All target audiences identified above will be notified at this level.
2. Distribute written and/or video **media release** about upcoming aquatic weed spraying, the nature of diquat and invasive lakeweeds through local and regional newspapers, radio, stakeholder websites and social media.
3. **Signage** will be erected at each lake detailing the location and timing of control operations, their duration, information about rāhui for taking of water, swimming, and taking of fish for consumption, and contact details for TALT. See Appendix 2 for signage locations. Signage will be removed following this rāhui.
4. **Optional hui** will be offered to hapū affiliated with spraying sites. If accepted, TALT staff to give presentation about current aquatic weed management and accept feedback in person. Feedback from these hui will be recorded and incorporated into future operations. If a hui is deemed unnecessary by the hapū, information will be provided for hapū representatives to distribute.

## Te Tūhononga Kōrero | Channels of engagement

Channel	Details of engagement	Timing (approximate)
Written and/or video media release	Written and/or video media release distributed via social media and TALT website.	1 week prior to control operations
Email/letter/phone call	Distributed to all target audiences.	1 week prior to control operations and throughout control operations
Websites	Copy of Spray Plan provided on stakeholder websites.	1 week prior to control operations
Newspaper	Notices in Rotorua Daily Post.	1 week prior to control operations
Radio	Announcements made on local radio station Te Arawa FM before and during control operations.	1 week prior to control operations
Social media	Posts made on TALT social media pages. Content will be developed by TALT and once posted a link will be distributed to stakeholders to share.	3 days prior to control operations and ongoing daily updates throughout control operations

Signage	Signage erected around sprayed lake.	1 day prior to control operations
Hui	Offered as an option to mana whenua.	Ongoing

## Whakapā Mai | Contact details

Any queries should be directed to Te Arawa Lakes Trust via email [aquaticweed@tearawa.iwi.nz](mailto:aquaticweed@tearawa.iwi.nz). Further updates in relation to the work and treatment progress can be found on [www.tearawa.iwi.nz](http://www.tearawa.iwi.nz) and [www.linz.govt.nz](http://www.linz.govt.nz).

## Tuku Kōrero Mai | Feedback form

### Te Arawa Rotomoana | Te Arawa Lakes Trust Weed Spray Feedback Form

Please fill this form out and return to 1194 Haupapa Street, Rotorua, or email it to [aquaticweed@tearawa.iwi.nz](mailto:aquaticweed@tearawa.iwi.nz) if you have any feedback regarding aquatic weed management operations.

This form will be assessed by Te Arawa Lakes Trust Health and Safety Officer.

#### Contact details

Name:	
Contact Number:	
Email address:	
Postal address: (optional)	
Signature: Date:	

#### Location of interest:

Method of application:	Yes/No
Boat	
Helicopter	
Manual (knapsack)	

#### Feedback:

# Te Āpiti 2 | Appendix 2: Te tohu | Signage

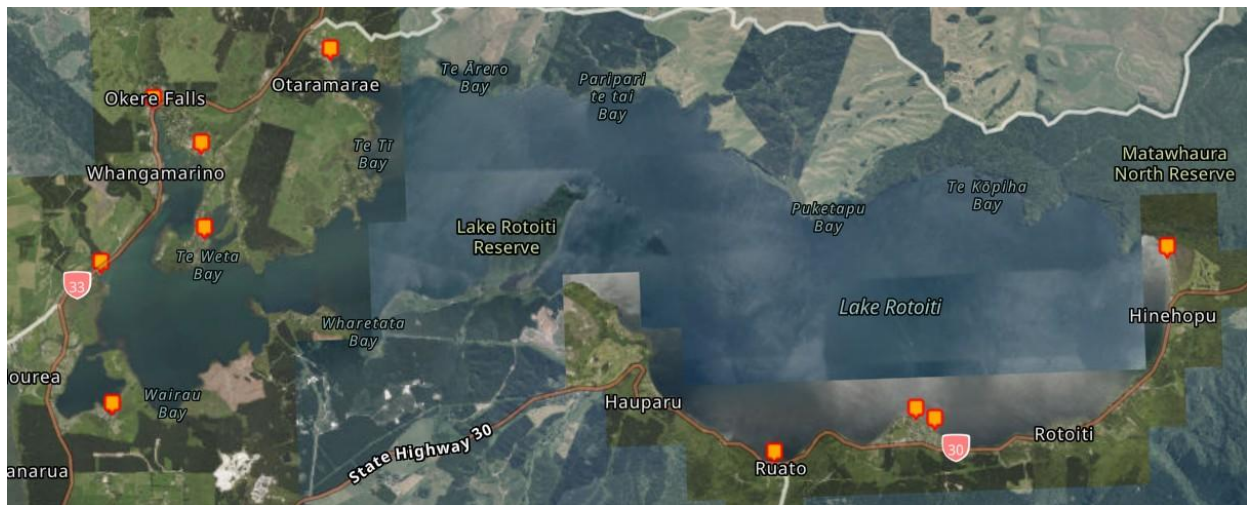
## Rotorua



### Signage locations:

- Motutara / Sulphur Bay Boat Ramp
- Lake Front Boat Ramp
- Karenga Street Reserve
- Hei Mātau Paddlers Reserve
- Haumoana Street Reserve
- Manahi Ave Reserve
- Waiowhiro Stream Outlet

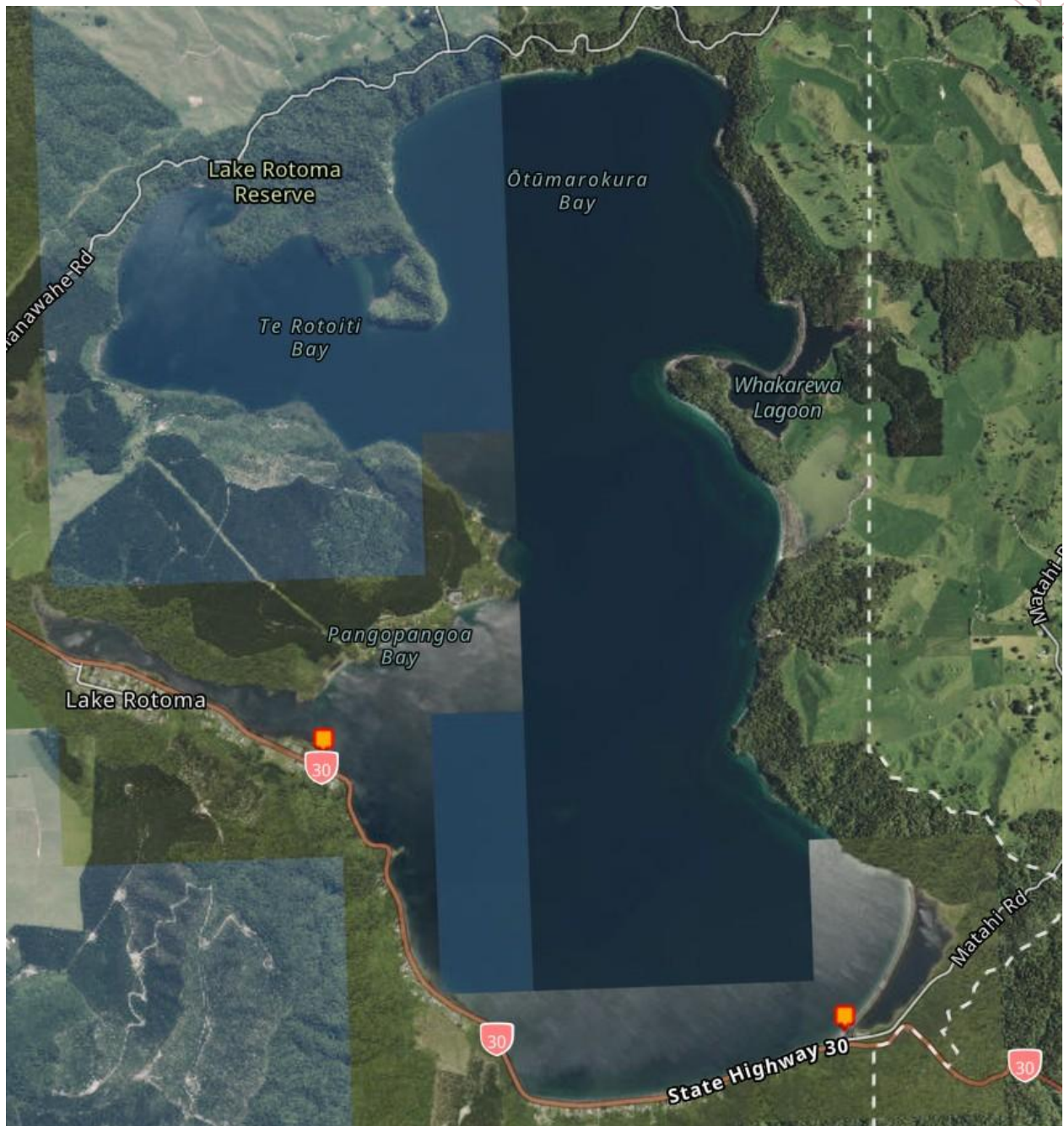
# Rotoiti



## Signage locations:

- Delta boat ramp
- Ōtaramarae boat ramp
- Okere Falls Store Jetty
- Rotoiti Holiday Park
- Te Weta Bay (walking track entrance)
- Ōkawa Bay boat ramp
- Te Ruatō Bay
- Gisborne point boat ramp
- Punawhakareia boat ramp
- Hinehopu boat ramp

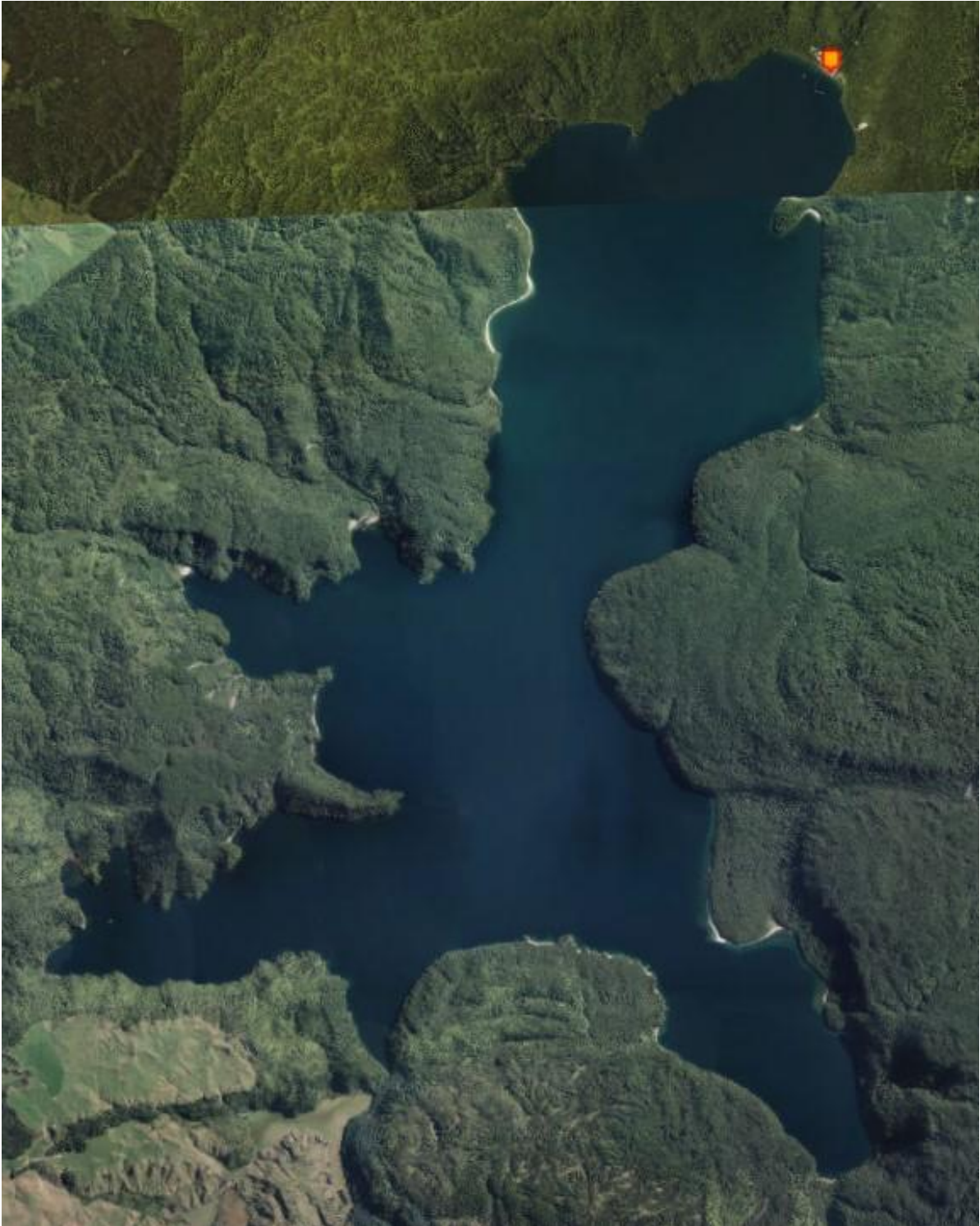
# Rotomā



## Signage locations:

- Merge Lodge Boat Ramp
- Matahi Spit Boat Ramp

## Ōkātaina



### Signage locations:

- Tauranganui Boat Ramp

# Ōkāreka



## Signage locations:

- Acacia Bay Boat Ramp
- Acacia Road mistletoe walk
- Boyes Beach
- Te Waiariki Purea Trust building
- DOC campground
- Girls' Beach

## Tarawera



### Signage locations:

- Punaromia/The Landing boat ramp
- Ōtūmutu lagoon boat ramp