

Boffa Miskell



# Lake Karāapiro Lakeweed Spraying Public Notification Protocol

Lake Karāapiro Aquatic Weed Management  
Prepared for Land Information New Zealand



## 1.0 Document purpose

This document sets out the public notification standards for boat-based or aerial aquatic weed spraying in Lake Karāpiro, as part of Toitū Te Whenua | Land Information New Zealand's (LINZ) annual lakeweed control programme. The public notification standards are made up of six separate but interlinked standards:

- warning signs
- radio notifications
- print and online local newspapers
- email notifications to a stakeholder list
- email notifications to owners of consented water takes
- information on the LINZ website.

The public notification standards ensure that the local community is notified via a variety of channels with different target audiences.

## 2.0 About hornwort and lagarosiphon

Lake Karāpiro is a multi-use lake with intrinsic, cultural, environmental, recreational, sporting and utility values (e.g., hydro-power generation and water takes). These values are threatened by the submerged aquatic weed hornwort (*Ceratophyllum demersum*). Hornwort is designated an Unwanted Organism under the Biosecurity Act 1993. Hornwort can quickly smother lakes when left unchecked, which can impact the recreational, hydrogeneration, cultural and environmental values that Lake Karāpiro provides the community. Hornwort is challenging to control, and poses the risk of spread to other waterbodies, especially into the South Island where it is currently absent. Hornwort is widespread within Lake Karāpiro, therefore chemical control via boat or helicopter is deemed the most appropriate and cost effective method.

Although hornwort is not classified as a pest under the Waikato Regional Pest Management Plan 2022-32, it has been identified as a priority for control in Lake Karāpiro by the Lake Karāpiro Aquatic Weed Management Group (WMG), which includes LINZ, Mercury Energy, the Waipa District Council, local Iwi and the Waikato Regional Council.

The areas for focusing sustained weed control in Lake Karāpiro are agreed upon by the WMG and included in the Weed Management Plan for hornwort in Lake Karāpiro 2016 to 2025. The High-Risk Areas, such as boat ramps, and High-Amenity Areas, such as recreational areas like ski lanes and swim beaches, are under active management.

## 3.0 Aquatic herbicides

Diquat dibromide is used to treat hornwort at Lake Karāpiro. Diquat is one of two herbicides in New Zealand that is currently registered for application directly into water to control aquatic

weeds (endothall being the other). The use of diquat in Waikato waterways is a permitted activity under the Waikato Regional Plan section 6.2.4.9.

Diquat is the active ingredient in Reglone®, a herbicide that has been used in New Zealand for over 60 years for both agricultural operations and aquatic weed control.

Diquat is a safe and effective herbicide that controls unwanted aquatic weed species. Most native plant species are not affected by diquat at the rates at which they are applied, nor are fish species affected. When diquat comes into contact with aquatic weeds it is rapidly absorbed producing peroxide that acts like a bleach desiccating plant tissue and disrupting cell membranes. As per the label requirements, it is recommended that lake users do not swim, fish, consume or use water for irrigation until 24 hours after control.

For more information on Diquat please see the factsheet that has been provided by NIWA  
[Diquat FAQs\\_A4.indd \(niwa.co.nz\)](#)

## 4.0 Public notifications

Before undertaking boat-based or aerial aquatic weed spraying, a range of public notifications channels are used to inform lake and river users, including owners of consented water takes, neighbouring landowners, district and regional councils, iwi, advocacy groups, and the local community, of the timing and use of herbicide treatment at Lake Karāpiro.

### 4.1 Warning signage

Warning signs will be erected at key access points to Lake Karāpiro as per Table 1 below, map in Appendix 1.

Sign location	Number on map (Appendix 1)
Ariki Street boat ramp	1
Mighty River Domain	2
Waikato Rowing Club	3
Brooklyn Water Ski Club	4
Waipuke Park	5
Piarere Water Ski Club	6
Horahora Domain	7
Little Waipa Reserve	8
Little Waipa Reserve	9
Bob's Landing	10
Moana Roa Reserve	11
Keeley Reserve	12
Keeley Reserve boat ramp	13

Signage will be erected at a minimum of 24 hours before the scheduled date of control and remain in place for a minimum of 24 hours following. Once the 24-hour standdown period for swimming, fishing and taking water has lapsed following control operations, signs will be removed.

Figure 1 shows the signage that will be erected. This sign includes information on:

- the proposed treatment dates
- the diquat label recommendations for standdown times
- target weed species, application method and hazard classification of diquat
- a scannable QR code which links to the LINZ webpage giving up-to-date information on specific sites and timing for when sites are planned/were controlled and when they are safe to use again.
- an 0800 number that can be called during business hours if a member of the public has questions about the spray operations.

A signage register is kept up to date to record information on the location of signs, and when they are erected and removed.



Figure 1. An example warning sign that will be erected at key lake access points proximate to the application areas.

## 4.2 Radio notifications

Radio notifications will be run at least seven days before the proposed treatment date and daily throughout the week the control takes place.

The information included in the radio notification includes:

- the proposed treatment dates and location
- the diquat label recommendations for standdown times
- target weed species and application method

- an 0800 number that can be called during business hours if a member of the public has questions about the spray operations.

Radio Notifications will be placed on NZME key radio stations within the Waikato area.

### 4.3 Newspaper and app advertisements

Newspaper notifications will be placed in local newspapers at least seven days before the scheduled date of control, as well as on the first day of the period in which spraying is planned to be carried out.

The information included in the newspaper notifications includes:

- the proposed treatment dates and location
- the diquat label recommendations for standdown times
- target weed species, application method and hazard classification of diquat
- an 0800 number that can be called during business hours if a member of the public has questions about the spray operations.

Notifications will be placed in the following newspapers:

- Cambridge News (print and online)
- Waikato Times (print and online)

### 4.4 Stakeholder emails

Emails are sent to a comprehensive list of stakeholders, which include district and regional councils, DOC offices, community groups, relevant businesses, schools and affected individuals in advance of proposed spray dates, as well as 24 hours before application, on the day(s) of application and after application.

The information included in the email notifications includes:

- the proposed treatment dates and locations
- maps showing the proposed spraying locations
- a PDF version of the NIWA diquat fact sheet
- the diquat label recommendations for standdown times
- target weed species, application method and hazard classification of diquat
- an 0800 number that can be called during business hours if a member of the public has questions about the spray operations.

Please email [biosecurity@boffamiskell.co.nz](mailto:biosecurity@boffamiskell.co.nz) if you would like to be added to the distribution list.

### 4.5 Email notifications to owners of consented water takes

Identification of consented water takes is undertaken before application using the Waikato Regional Council's surface water take information database. The owners of consented water takes within one kilometre downstream of application areas will be notified via email at least seven days before the planned application.

The information included in the email notifications includes:

- the proposed treatment dates and location
- the diquat label recommendations for standdown times
- target weed species, application method and hazard classification of diquat
- an invitation to discuss how spraying could take place without affecting water supplies. Mitigations may include temporarily disabling the water take or electing not to treat the proposed control site

#### 4.6 LINZ website

Notification of spraying is published on the [LINZ website](#) giving up-to-date information on current and upcoming control at lakes and specific sites. This information includes the scheduled date of control, the actual date of treatment, and if the site is safe to swim at, gather food from, and/or take water for irrigation or domestic purposes.

This LINZ website can be accessed using a scannable QR code present on warning signage.



*Figure 2. An example of a scannable QR code included on warning signage that will be erected at key lake access points proximate to the application areas.*

#### 4.7 Public concerns

Should a member of the public have any concerns, they are encouraged to contact BML's 0800 number 0800 638 943 or email BML Biosecurity [biosecurity@boffamiskell.co.nz](mailto:biosecurity@boffamiskell.co.nz). All enquiries are responded to during business hours as soon as possible and logged for future reference.

## Appendix 1: Proposed Lake Karāpiro Signage Locations



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2 km  
1:75,000 @ A4

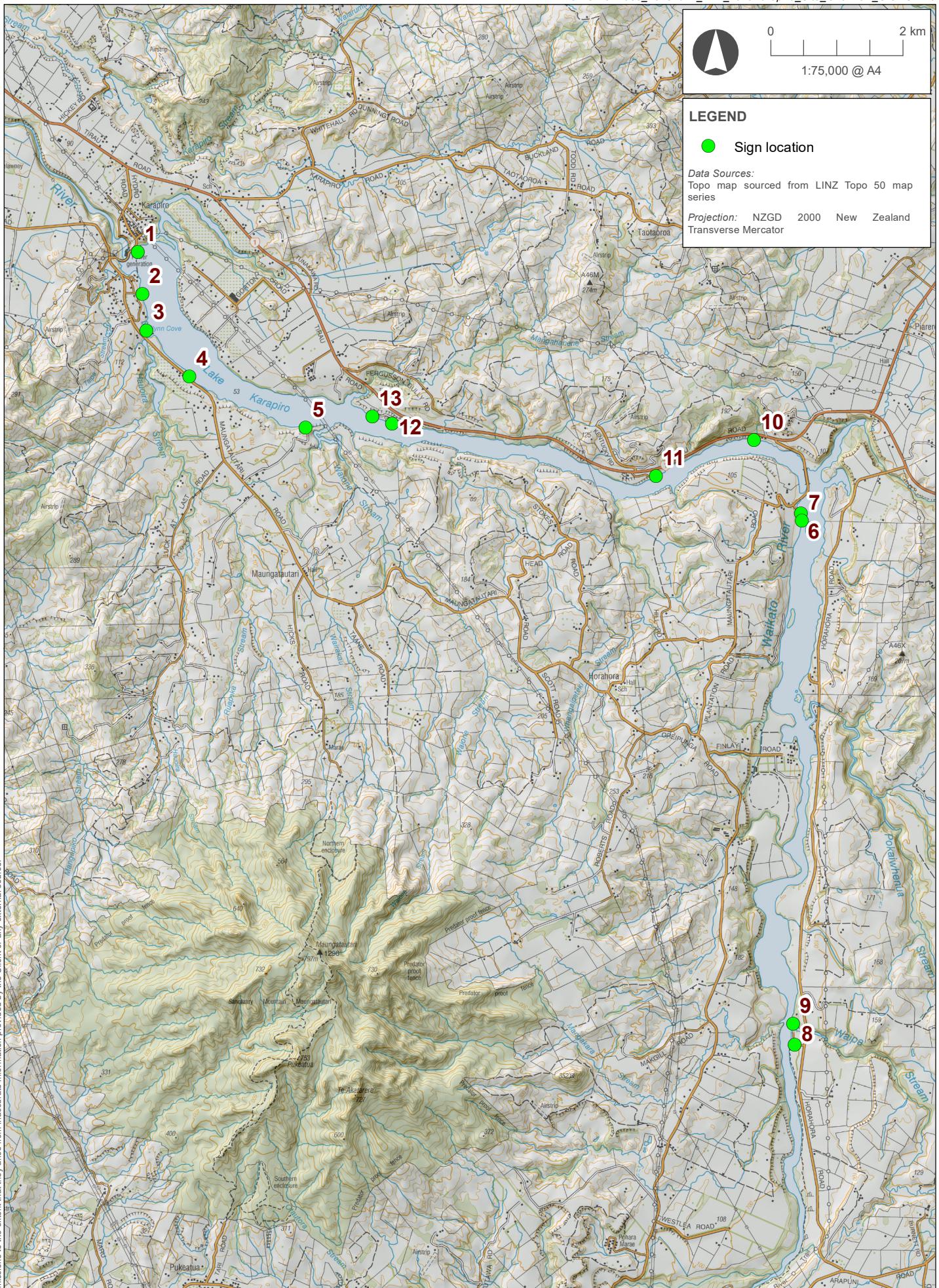
### LEGEND

● Sign location

**Data Sources:**  
Topo map sourced from LINZ Topo 50 map series

**Projection:** NZGD 2000 New Zealand Transverse Mercator

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