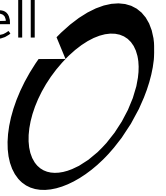


Boffa Miskell



Operational Spray Plan

Lake Dunstan Aquatic Weed Management
Prepared for Land Information New Zealand

31 May 2023

Contents

1.0	Discharge Permit	3
2.0	Pre-Spray Monitoring and Proposed Control Sites and Dates	3
3.0	Herbicide Application	3
4.0	Notifications	4
4.1	Newspaper advertisements	4
4.2	Comprehensive stakeholder email list	4
5.0	Signage	5
6.0	Water Takes	5
7.0	Proposed Spray Areas	8

1.0 Discharge Permit

Land Information New Zealand holds a Discharge Permit (No. RM14.111.01), issued by the Otago Regional Council, for the discharge of diquat herbicide and Intracid Rhodamine WT liquid tracer dye throughout waterbodies in Otago for the purpose of aquatic plant pest control. The Discharge Permit expires on 20 May 2049.

2.0 Pre-Spray Monitoring and Proposed Control Sites and Dates

Surface-based aquatic weed delimitation survey was carried out on Tuesday 6th June 2023. The following sites were surveyed and were deemed fit for spraying:

- Bendigo Boat Ramp & Approaches
- Lowburn Boat Harbour

3.0 Herbicide Application

Boat based aquatic weed spraying is scheduled to begin from **Monday 29th May 2023 and may continue intermittently to Friday 30th June 2023**, as weather, weed and water conditions permit. Treatment will not take place during weekends or on public holidays.

As a precautionary measure only, Land Information New Zealand advises users not to take water from Lake Dunstan to consume or for irrigation purposes from the vicinity of the treatment area until **24 hours** after treatment has been completed.

Notices will be placed at www.linz.govt.nz 24 hours prior to the planned spray dates. Warning signs will be placed at authorised public boat ramps prior to and during treatment and will be removed 24 hours after treatment. Changeable weather conditions may result in delays to weed spraying.

Please scan the QR code below to access the most up-to-date information on control timings.



The Hazard classification for diquat is 6.1C, 6.3A, 6.9A, 8.1A, 9.1A and 9.3C.

Diquat factsheet prepared by NIWA.

<https://niwa.co.nz/sites/niwa.co.nz/files/Diquat%20FAQ%20Download.pdf>

Reglone Diquat Herbicide Label.

<https://syngenta.my.salesforce.com/sfc/p/#24000000Yk1o/a/1o0000005A43/yCjCCVLyKhxx9ee7wmLCZxrNhS2Xtb7IJ9QtHsZtUDQ>

4.0 Notifications

4.1 Newspaper advertisements

The Otago Daily Times

Publication Dates:

- Monday 24th May 2023
- Monday 29th May 2023

Cromwell Bulletin

Publication Dates:

- Thursday 25th May 2023
- Thursday 1st June 2023

4.2 Comprehensive stakeholder email list

Emails are sent to the comprehensive stakeholder list at least one week in advance of proposed spray dates, the day before spraying, on the day(s) of spraying and at the conclusion of spraying. Please email biosecurity@boffamiskell.co.nz if you would like to be added to the mailing list.

5.0 Signage

Warning signage is erected at each spray site prior to application and is removed once the 24-hour stand down period for swimming, fishing and taking water has elapsed.



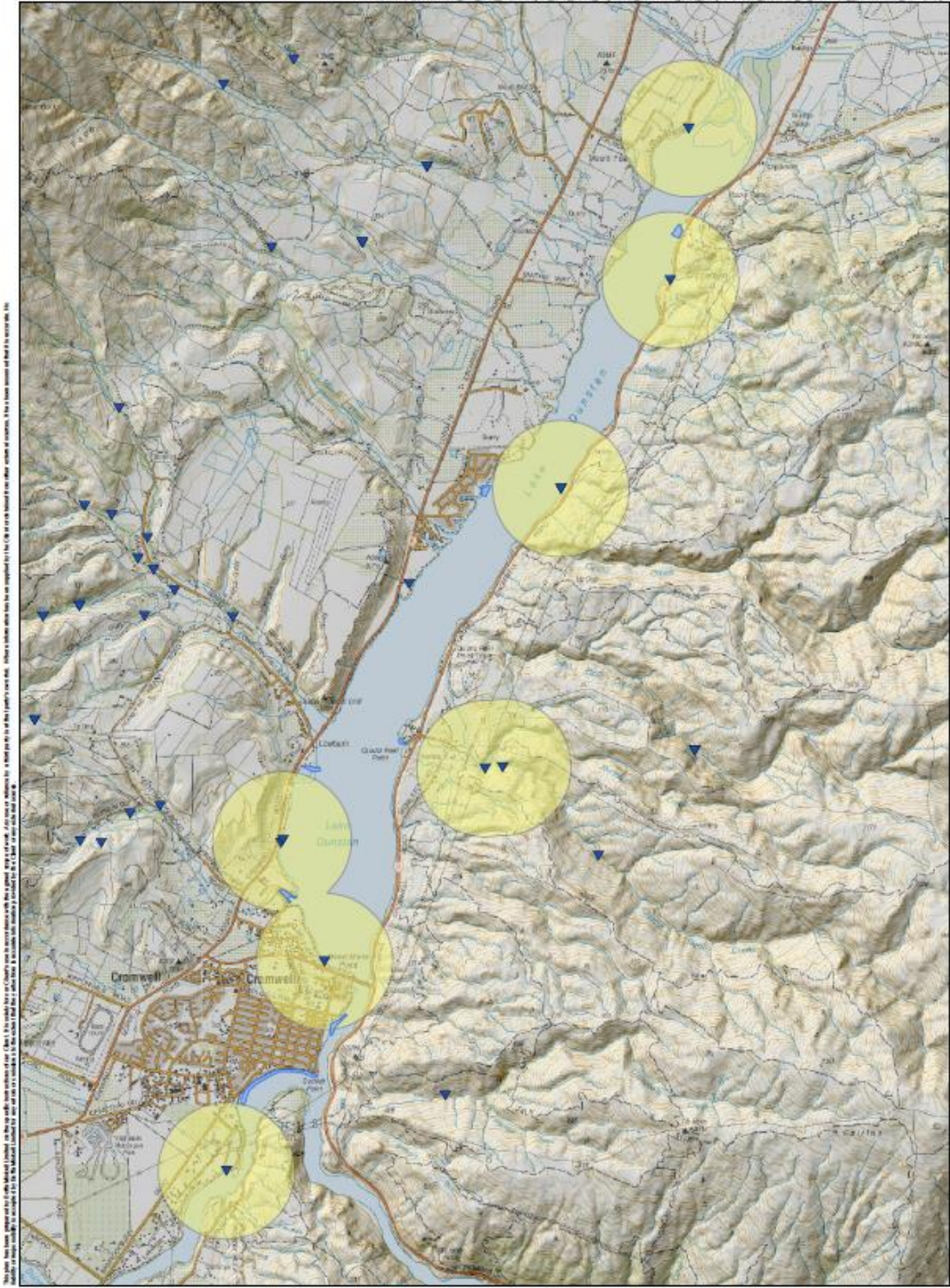
Figure 2. An example warning sign that will be erected at each spray site

6.0 Water Takes

Identification of consented water takes is undertaken using the Otago Regional Council's surface water take information data set.

- RM16.213.01, Central Otago District, Surface Water Take Permit, to take and use surface water from Lake Dunstan for the purpose of irrigation, communal domestic supply, and wine processing.

These water takes have been mapped and are shown below.



<p>Boffa Miskell</p> <p>www.boffamiskell.co.nz</p>	<p>Scale: 1:50,000 @ A3</p> <p>Date Source: Esri Technology, Land Information New Zealand</p> <p>Projection: NZGD 2000 New Zealand Transverse Mercator</p>	<p>DRAFT</p> <p>LEGEND</p> <ul style="list-style-type: none"> Surface Water Take Permit Surface Water Take (buffer 1km) Control Method Boat Herbicide 	<p>LINZ 2022/23 BIOSECURITY</p> <p>Upper Lake Dunstan 2022/23</p> <p>Date: 28 April 2023 Revision: 0</p> <p>Plan prepared for LINZ by Boffa Miskell Limited</p> <p>Project Manager: marcus.given@boffamiskell.co.nz Drawn: DMc Checked: JLo</p>	<p>Map 1</p>
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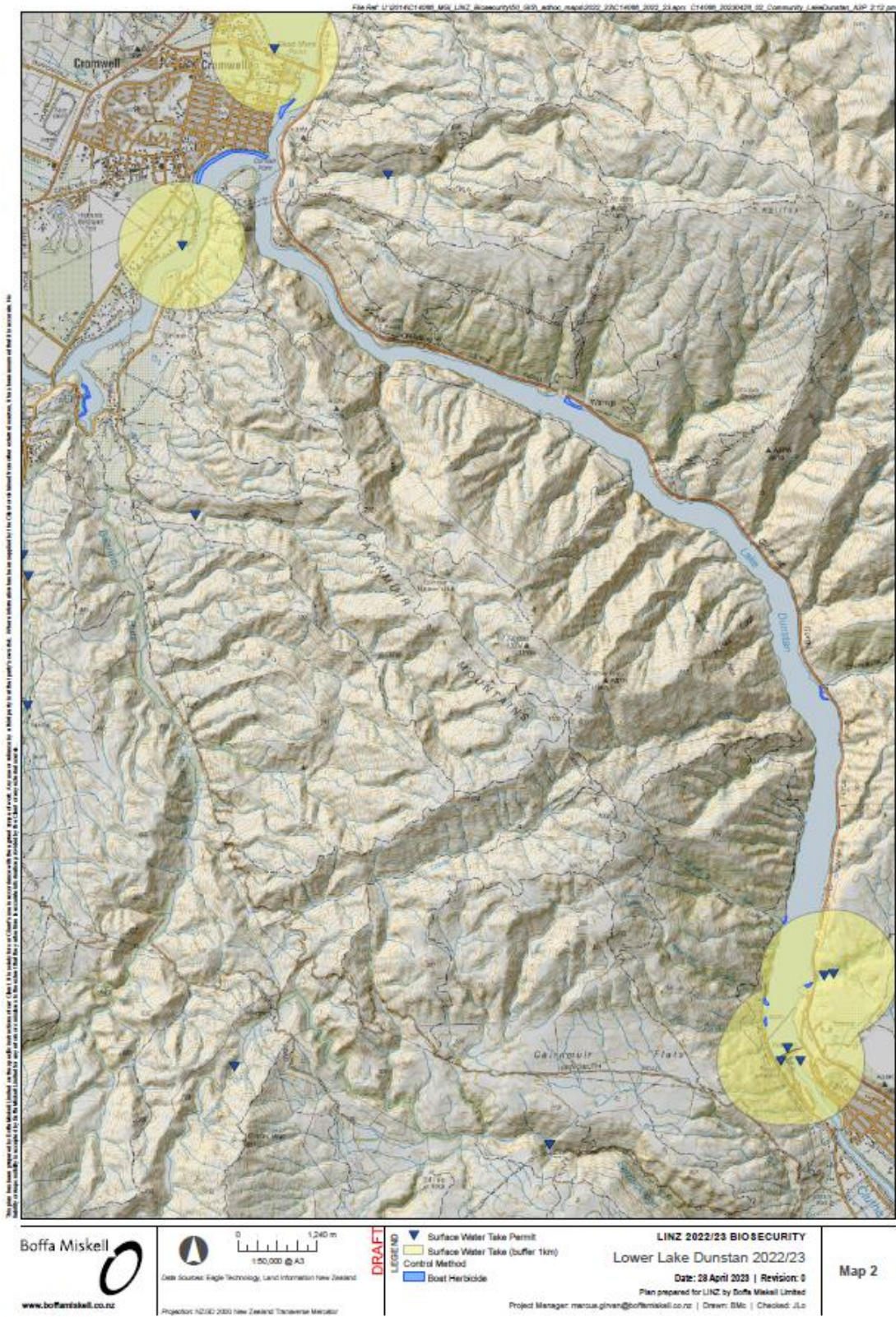
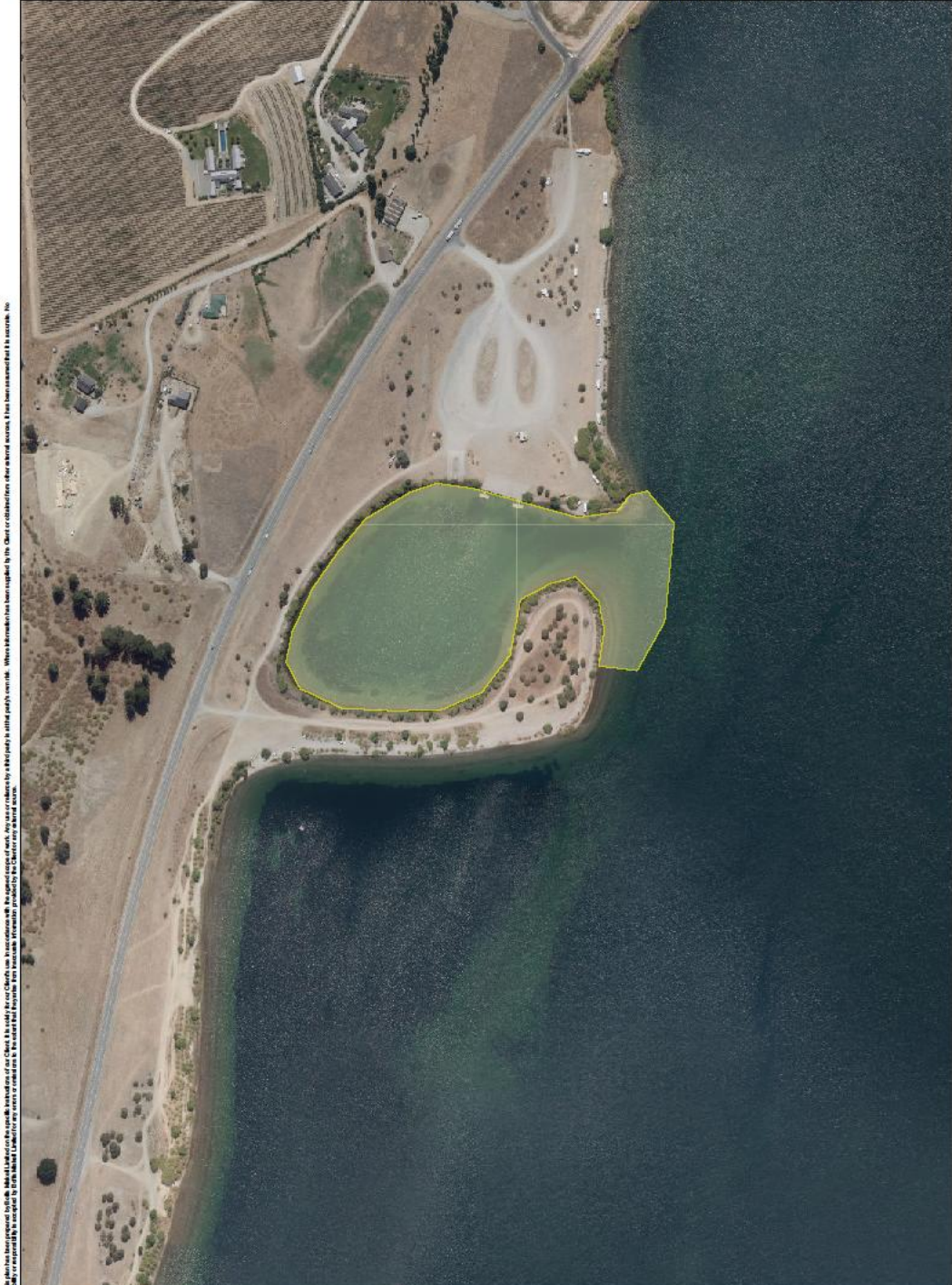


Figure 1. Consented water takes (point data) near the Bendigo boat ramp

7.0 Proposed Spray Areas

Figure 3. Proposed herbicide treatment areas



This plan has been prepared in accordance with the instructions of our Client. It is made for our Client's use in accordance with the agreed scope of work. You use or reliance on a map made by a third party is at your own risk. Where information has been supplied by the Client or collaboration, please ensure that it is accurate. We do not accept any liability for errors or omissions in the information provided. We warrant that the information provided is true and correct to the best of our knowledge.

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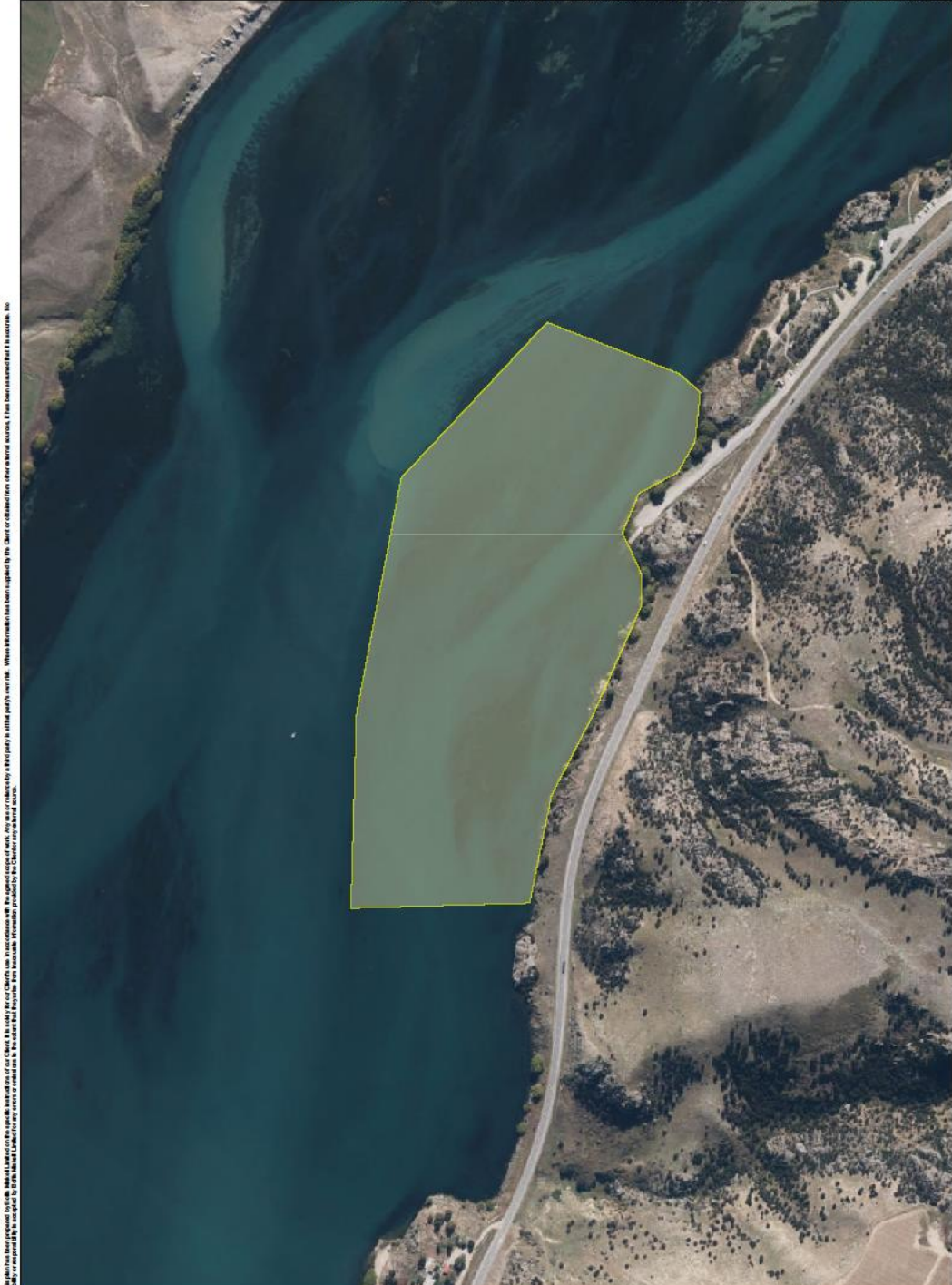

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 Data Sources: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors
 Projection: NZGD 2000 New Zealand Transverse Mercator

DRAFT
LEGEND

Control Method	
Aerial Herbicide	


LINZ 2022/23 BIOSECURITY
Lowburn Boat Harbour, Lake Dunstan 2022/23
 Date: 29 May 2023 | Revision: 0
 Plan prepared for LINZ by Boffa Miskell Limited
 Project Manager: marcus.gilvan@boffamiskell.co.nz | Drawn: B.M.C. | Checked: J.L.

Map 1



This plan has been prepared in accordance with the Biosecurity Act 1992 and the Biosecurity Regulations 2011. It is intended to provide information to the public and to the relevant authorities. It is not intended to be used as a legal document. The information contained in this plan is for general information only and should not be relied upon for any specific purpose. The information contained in this plan is for general information only and should not be relied upon for any specific purpose.




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 1:4,000 @ A3
 Data Sources: Eagle Technology, Land Information New Zealand, GIBCO, Community maps contributors
 Projection: NZGD 2000 New Zealand Transverse Mercator

DRAFT

LEGEND

Control Method	
Aerial Herbicide	

LINZ 2022/23 BIOSECURITY
 Bendigo, Lake Dunstan 2022/23
 Date: 29 May 2023 | Revision: 0
 Plan prepared for LINZ by Boffa Miskell Limited
 Project Manager: marcus.gilvan@boffamiskell.co.nz | Drawn: B.Mc | Checked: J.Lu

Map 2