

REPORT



To: Juliette Curry
West Coast Regional Council

From: Hamish Lass
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Date: 11/05/2019

File Ref:

Subject: **West Coast Region Weed surveillance March 2019**

The Bay of Plenty Regional Council completed an in-water inspection for the presence of invasive freshwater lake weeds at 8 lakes within the West coast region. These lakes were -

- Lake Brunner
- Lake Kaniere
- Lake Mahinapua
- Lake Poerua
- Kapitea Reservoir
- Lake Mapourika
- Lady Lake
- Lake Haupiri

Scope of works

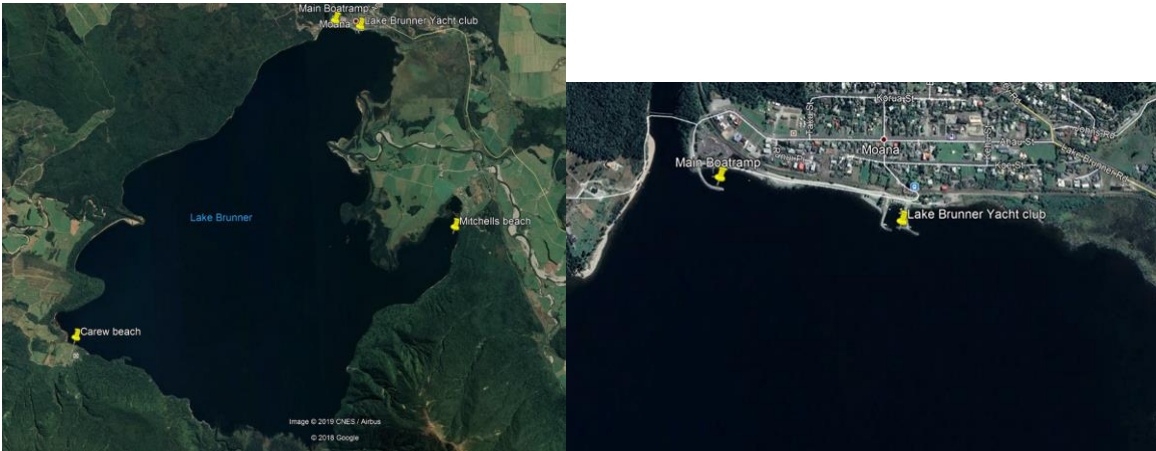
West Coast Regional Council, on behalf of the Department of Conservation, engaged with Bay of Plenty Regional Council's dive team to carry out surveillance of selected lakes that are perceived as posing the highest risk of incursion.

Background

Aquatic weeds and pest fish pose a severe threat to West Coast freshwater lakes and waterbodies. Already a number of invasive species have been detected, many of which are now under ongoing costly and challenging control programmes. Several other species, such as hornwort, have not been detected in the West coast yet but pose a major threat to aquatic systems should they arrive. Approximately 20 sizeable accessible lakes exist in West Coast Region, and there is concern invasive aquatic species may spread to other lakes.

Results

Lake Brunner



Lake	Date monitored	Location	Invasive species found
Brunner	27/03/2019	Main boat ramp	<i>Elodea canadensis</i>
Brunner	27/03/2019	Iveagh bay	<i>Elodea canadensis</i>
Brunner	27/03/2019	Mitchells	<i>Elodea canadensis</i>
Brunner	28/03/2019	Yacht club	<i>Elodea canadensis</i>

Mitchells



Area checked to a depth of 6m. Water visibility 1-2m. Other species noted – appendix 2

Iveagh bay



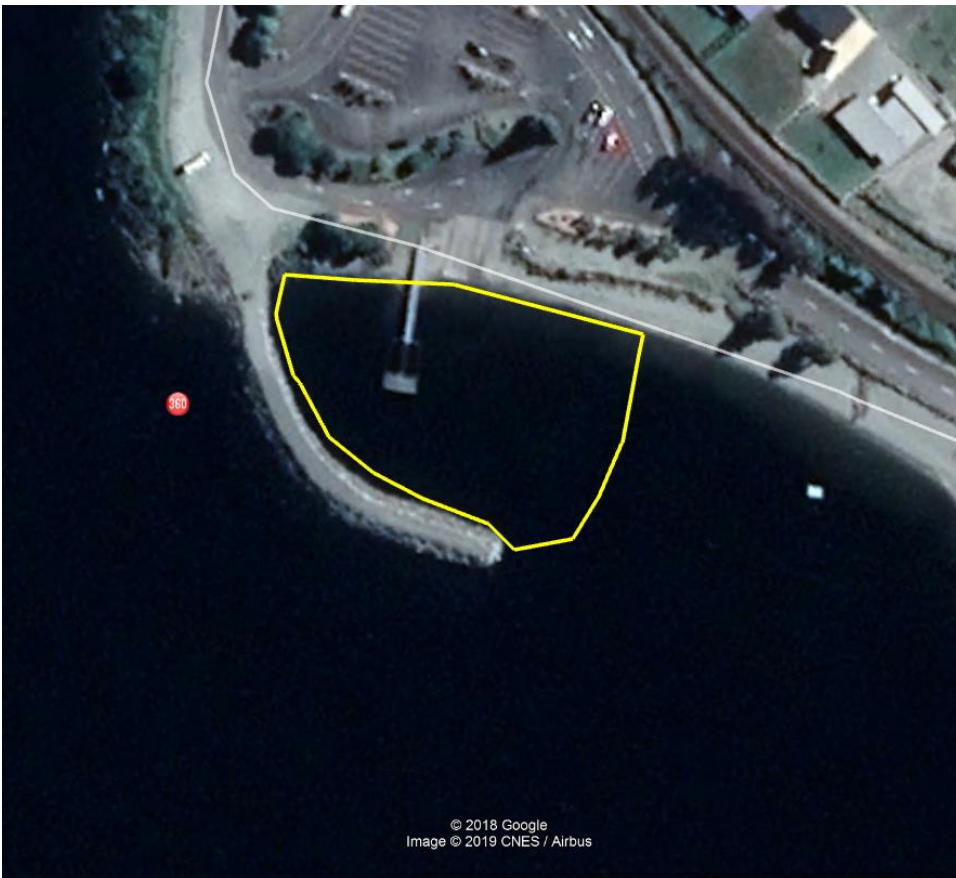
Area checked to a depth of 4.5m. Water visibility 1-2m. Other species noted – appendix 2

Lake Brunner -Yacht club



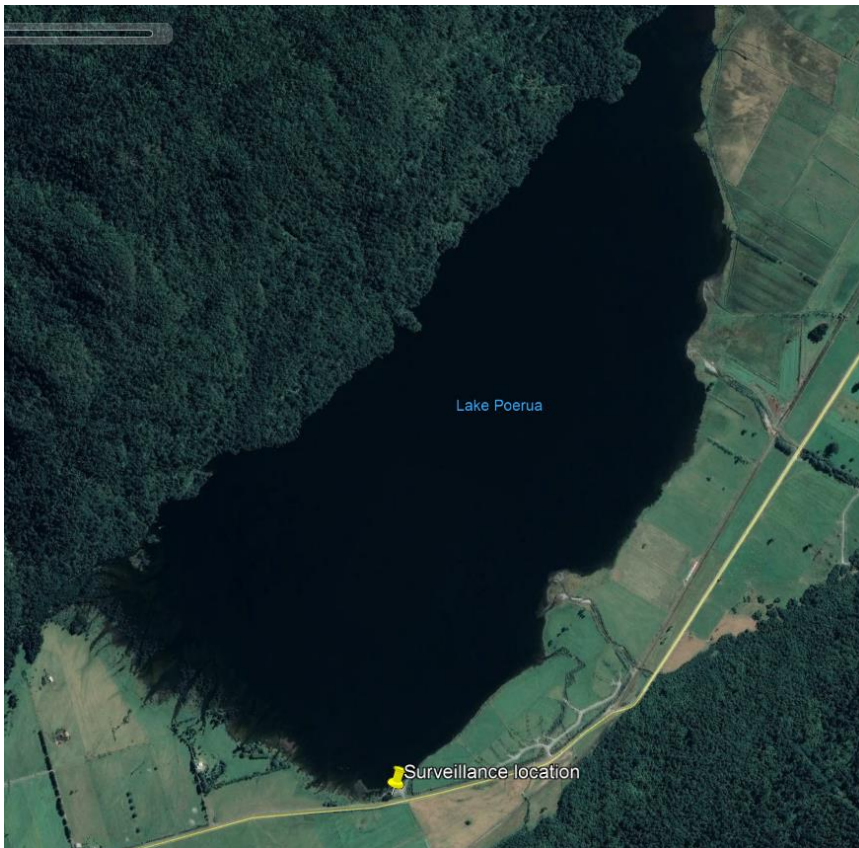
Area checked to a depth of 4.5m. Water visibility 1-2m. Other species noted – appendix 2

Lake Brunner - Main boat ramp



Area checked to a depth of 3-5m. Water visibility 1-2m. Other species noted – appendix 2

Lake Poerua



Lake	Date monitored	Location	Invasive species found
Poerua	28/03/2019	Main Ramp	<i>Elodea canadensis</i>

Lake Poerua – Main ramp



Area checked to a depth of 3m. Water visibility 1-2m. Other species noted – appendix 2

Lake Haupiri



Lake	Date monitored	Location	Invasive species found
Haupiri	27/03/2019	Main Ramp	<i>Elodea canadensis</i>

Lake Haupiri – Main ramp



Area checked to a depth of 3m. Water visibility 1-2m. Other species noted – appendix 2

Lake Kaniere



Lake	Date monitored	Location	Invasive species found
Kaniere	29/03/2019	Main Ramp	<i>Elodea canadensis</i>

Lake Kaniere – Main ramp



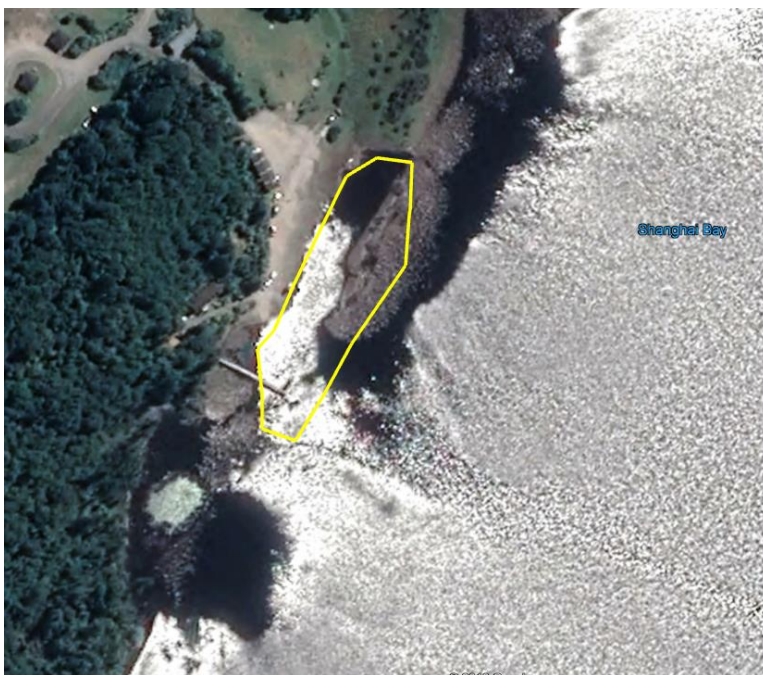
Area checked to a depth of 2.5m. Water visibility 1-2m. Other species noted – appendix 2

Lake Mahinapua



Lake	Date monitored	Location	Invasive species found
Mahinapua	29/03/2019	Main Ramp	<i>Elodea canadensis</i>

Lake Mahinapua – Main ramp



Area checked to a depth of 3.5m. Water visibility 1-2m. Other species noted – appendix 2

Lady Lake



Lake	Date monitored	Location	Invasive species found
Lady	27/03/2019	Swimming access area	<i>Elodea canadensis</i>

Lady Lake – Swimming access area



Area checked to a depth of 2.5m. Water visibility 1-2m. Other species noted – appendix 2

Kapitea Reservoir



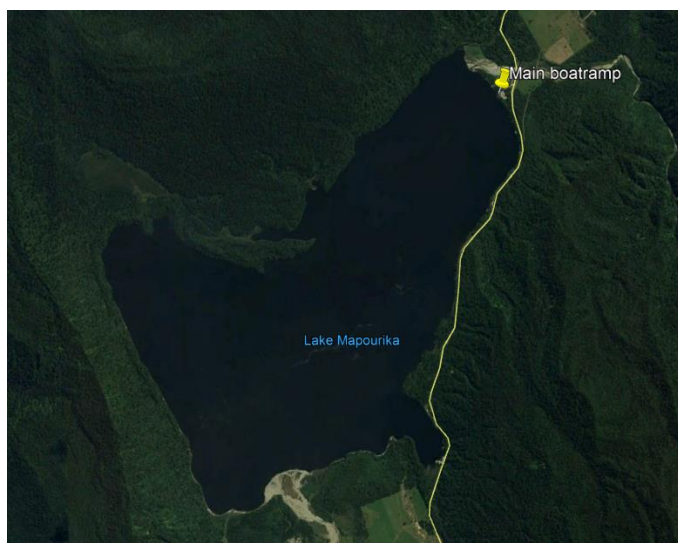
Lake	Date monitored	Location	Invasive species found	Invasive species found
Kapitea	28/03/2019	Main Ramp	<i>Elodea canadensis</i>	<i>Lagarosiphon major</i>

Lagarosiphon major was recorded within this area (in red below). There were scattered plants approximately 2m³ each in size all the way along the shoreline. I would say the distribution of these plants would be approximately 1-2 plants per 100m³. The density of lag within the surveillance area would be medium (100-200 plants per ha). The health of the lag was generally good, smaller plants than was seen in the Rotorua lakes, and the depth of the lag was definitely reflected by the tannin water condition. The depth of the lag was 1-2m – 4-5m. I would say that you have a well-established population of lag within the lake that it has been there for some years.



Area checked to a depth of 5m. Water visibility 1-2m. Other species noted – appendix 2

Lake Mapourika



Lake	Date monitored	Location	Invasive species found
Mapourika	30/03/2019	Main Ramp	<i>Elodea canadensis</i>

Lake Mapourika – Main ramp



Area checked to a depth of 4m. Water visibility 1-2m. Other species noted – appendix 2

Lake Wahapo – Not monitored due to zero visibility**Kangaroo Lake – Not monitored (no access)****Discussion**

The following actions are recommended:

- Undertake regular weed surveillance of West Coast Lakes at the frequencies recommended in appendix 1.
- Continue to undertake targeted public awareness activities including erecting appropriate signs at boat ramps, posting informative posters at appropriate places, utilising local media and having factsheets on display at visitor centres.
- Maintain the current state of readiness to respond to any incursion. Ensure ERMA permission to use Endothol remains up to date and maintain access to suitably qualified and experienced staff or contractors to undertake control of a new incursion at short notice.

Appendix 1

Lake	Last checked	Agency	Recommended frequency	Due
Brunner	Mar-19	BOPRC	Annual	2020
Lady	Mar-19	BOPRC	3 yearly	2022
Haupiri	Mar-19	BOPRC	2 yearly	2021
Poerua	Mar-19	BOPRC	3 yearly	2022
Kapitea	Mar-19	BOPRC	Annual	2020
Kaniere	Mar-19	BOPRC	Annual	2020
Mahinapua	Mar-19	BOPRC	2 yearly	2021
Mapourika	Mar-19	BOPRC	Annual	2020
Lake Wahapo	2014	NIWA	2 yearly	2016
Kangaroo	2015	NIWA	3 yearly	2018
Moeraki	2015	NIWA	Annual	2016
Matheson	2013	NIWA	10 yearly	2023
Pratt	2010	NIWA	5 yearly	2015
Ianthe	2015	NIWA	Annual	2015
Arthur	2005	NIWA	10 yearly	2015
Ahaura	2010	NIWA	5 yearly	2015
Hochstetter	2010	NIWA	5 yearly	2015
Hanlon	2005	NIWA	10 yearly	2015

Appendix 2

Other species noted during survey

Lake Brunner	Lady Lake	Lake Poerua
<i>Ranunculus trichophyllus</i>	<i>Myriophyllum propinquum</i>	<i>Ranunculus trichophyllus</i>
<i>Chara australis</i>	<i>Myriophyllum triphyllum</i>	<i>Chara australis</i>
<i>Myriophyllum triphyllum</i>		<i>Myriophyllum propinquum</i>
<i>Myriophyllum propinquum</i>		<i>Myriophyllum triphyllum</i>
<i>Chara fibrosa</i>		<i>Chara fibrosa</i>
Kapitea Reservoir	Lake Mapourika	Lake Kaniere
<i>Myriophyllum propinquum</i>	<i>Myriophyllum propinquum</i>	<i>Myriophyllum propinquum</i>
<i>Myriophyllum triphyllum</i>	<i>Myriophyllum triphyllum</i>	<i>Myriophyllum triphyllum</i>
Lake Haupiri	Lake Mahinapua	
<i>Myriophyllum propinquum</i>	<i>Aponogeton distachyus</i>	
<i>Myriophyllum triphyllum</i>	<i>Nymphaea alba</i>	
	<i>Myriophyllum propinquum</i>	
	<i>Myriophyllum triphyllum</i>	

Chronically threatened species (Gradual decline)

<i>Isolepis fluitans</i> - Not noted in Lakes Haupiri, Lady, Brunner or Kaniere
<i>Myriophyllum robustum</i> - Not noted in Lake Mahinapua
<i>Ranunculus limosella</i> - Not noted in lakes Brunner or Kaniere