

Te Waikai Otaota: Te Mahere Nui

Spray Plan for Te Arawa Lakes Aquatic Weed Management

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 14th of November and the 2nd of December 2022 in Lake Rotorua, Lake Rotoiti, Lake Tarawera, Lake Ōkātina, Lake Rotomā and Lake Ōkāreka using the herbicide Diquat Dibromide.

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. See Appendix 1 for control sites.

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 |
|---------|---------------------|---|--------------------|--------------------------|
| Ōkāreka | 6.78 | 1.99 | Boat | 14 November – 2 December |
| Ōkātina | 7.23 | 0.67 | Boat | 14 November – 2 December |
| Rotorua | 19.7 | 0.24 | Boat | 14 November – 2 December |
| Rotoiti | 38.3 | 1.12 | Boat | 14 November – 2 December |



| | | | | |
|----------|------|------|------|-----------------------------|
| Rotomā | 4.92 | 0.44 | Boat | 14 November – 2 December |
| Tarawera | 2.91 | 0.02 | Boat | 14 November – 2 December |

Ngā Herenga | Consent conditions

Ngā Tikiwai | Water takes:

Consented water takes will be notified 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 to ensure those with permitted water takes can take appropriate action.

Ngā Wharau a Ngā Manu Taketake | Areas of native nesting bird roosting or breeding: (Waiting on confirmation from Department of Conservation)

Ngā Wāhi Tapu | Sites of significance to tangata whenua:

No new culturally significant sites were identified during this period. Tau kōura monitoring sites were included in the pre-spray monitoring survey and were found to be unimpeded by current weed growth, aside from one in Lake Rotoiti which will receive treatment.

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.

Ngā Herenga Otaota | Current weed conditions:

A pre-spray monitoring survey was undertaken throughout the month of October. At the time of survey, weed and water conditions were suitable for Diquat application in the lakes listed in Table 1. above. Lake Rotoehu was surveyed however water quality was not suitable for Diquat application. Lake Rerewhakaaitu has not been included due to successful results from previous aquatic weed control operations.

Ngā Pou Ārahi | Cultural Monitoring Plan:

Alongside these control works a cultural monitoring plan will be implemented to evaluate the impact of operations on taonga species. See Te Arawa Lakes Trust website for Cultural Monitoring Implementation Plan.



Te Āpiti 1 | Appendix 1: Control sites for each lake

Ōkāreka



0.4km

Maxar

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range |
|---------------------------|---------------------------|--------------------|--|
| Boyes Beach | 0.47 | Boat | 14 th November – 2 nd December |
| DOC campsite/eastern face | 5.87 | Boat | 14 th November – 2 nd December |
| Southern Outlet | 0.44 | Boat | 14 th November – 2 nd December |



Tarawera



Earthstar Geographics

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range |
|------------------------------|---------------------------|--------------------|--|
| Boat Shed Bay | 0.11 | Boat | 14 th November – 2 nd December |
| Kotukutuku Bay/The Landing | 0.1 | Boat | 14 th November – 2 nd December |
| Stoney Point | 0.52 | Boat | 14 th November – 2 nd December |
| Otumutu Lagoon/Humphries Bay | 1.21 | Boat | 14 th November – 2 nd December |
| Te Rata Bay/Hot Water Beach | 0.23 | Boat | 14 th November – 2 nd December |
| Te Karamea Bay | 0.21 | Boat | 14 th November – 2 nd December |
| Wairua Stream Mouth | 0.53 | Boat | 14 th November – 2 nd December |



TE ARAWA LAKES TRUST

Rotomā



0.6km
Maxar

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range for spray |
|-----------------------|---------------------------|--------------------|--|
| Matahi Spit | 0.3 | Boat | 14 th November – 2 nd December |
| Merge lodge boat ramp | 0.28 | Boat | 14 th November – 2 nd December |
| Whangaroa Inlet | 4.34 | Boat | 14 th November – 2 nd December |



Ōkātaina



2km

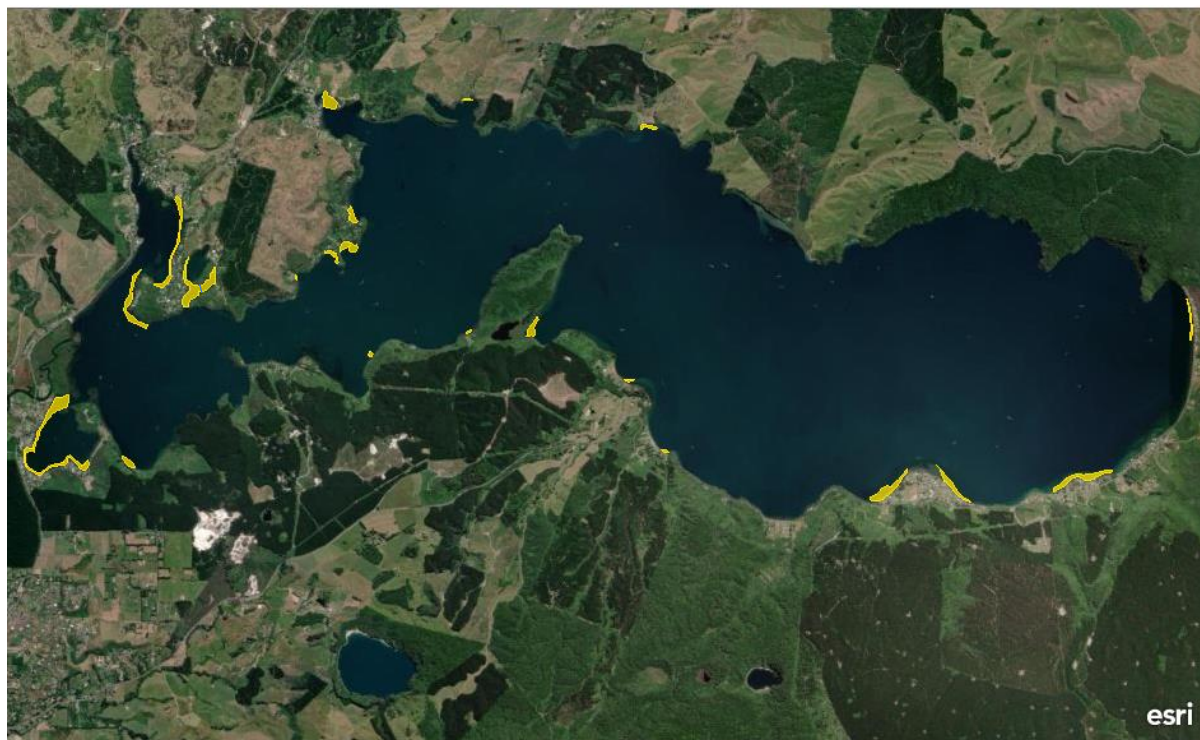
Earthstar Geographics

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range for spray |
|----------------------------|---------------------------|--------------------|--|
| Oruroa bay and Point Beach | 4.57 | Boat | 14 th November – 2 nd December |
| Turanganui/Boat Ramp | 0.18 | Boat | 14 th November – 2 nd December |
| South West Corner | 0.53 | Boat | 14 th November – 2 nd December |
| Haumingi Bay | 0.36 | Boat | 14 th November – 2 nd December |
| Ngahaua Bay | 0.49 | Boat | 14 th November – 2 nd December |
| Southern weed cordon | 1.1 | Boat | 14 th November – 2 nd December |



TE ARAWA LAKES TRUST

Rotoiti



2km
Earthstar Geographics

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range for spray |
|-----------------------|---------------------------|--------------------|--|
| Gisborne Point | 1.75 | Boat | 14 th November – 2 nd December |
| Te Puna Whakareia Bay | 3.43 | Boat | 14 th November – 2 nd December |
| Hauparu Bay | 0.16 | Boat | 14 th November – 2 nd December |
| Okahuturoa/Cherry Bay | 1.35 | Boat | 14 th November – 2 nd December |
| Okawa Bay | 7.47 | Boat | 14 th November – 2 nd December |
| Te Weta Bay 1 | 3.51 | Boat | 14 th November – 2 nd December |
| Te Weta Bay 2 | 2.36 | Boat | 14 th November – 2 nd December |
| Te Ti Bay | 1.1 | Boat | 14 th November – 2 nd December |
| Otaramarae | 2.28 | Boat | 14 th November – 2 nd December |
| Okere Inlet | 2.98 | Boat | 14 th November – 2 nd December |
| Kakaho Bay | 1.65 | Boat | 14 th November – 2 nd December |
| Whangamoa Drive | 0.1 | Boat | 14 th November – 2 nd December |



| | | | |
|-----------------|------|------|---|
| Tapuaekura bay | 0.2 | Boat | 14 th November – 2 nd December |
| Te Waiiti Point | 3.38 | Boat | 14 th November – 2 nd December |
| Tokerau Bay | 0.63 | Boat | 14 th November – 2 nd December |
| Teal Bay | 0.7 | Boat | 14 th November – 2 nd December |
| Wairau Bay | 0.89 | Boat | 14 th November – 2 nd December |
| Te Akau Bay | 3.37 | Boat | 14 th November – 2 nd December |
| Manupirua Bay | 0.32 | Boat | 14 th November – 2 nd December |
| Hinehopu | 0.68 | Boat | 14 th November – 2 nd December |



Rotorua



2km

Earthstar Geographics

| Site name | Treatment Area (Hectares) | Application Method | Preferred Date Range for spray |
|--------------|---------------------------|--------------------|--|
| Kawaha Point | 19.7 | Boat | 14 th November – 2 nd December |



TE ARAWA LAKES TRUST

Te Āpiti 2 | Appendix 2: Pou Whakamōhio | Signage locations

Table 1. Locations of signage for each lake

| Lake name | Signage locations |
|-----------|--|
| Rotorua | <ul style="list-style-type: none"> • Lakefront boat ramp • Hannahs Bay boat ramp • Hamurana boat ramp • Ngongotahā boat ramp • Manahi Ave Reserve • Haumoana St Reserve • Hei matau paddlers reserve |
| Rotoiti | <ul style="list-style-type: none"> • Otaramarae boat ramp • Delta boat ramp • Gisborne Point boat ramp • Okawa Bay boat ramp • Hinehopu boat ramp • Rotoiti Holiday Park boat ramp • Te Takinga Marae • Taheke Marae • Te Akau Reserve • Okere Rd • Te Weta Bay walkway |
| Tarawera | <ul style="list-style-type: none"> • The Landing • Boatshed Bay • Stoney Point boat ramp • Stoney Point Reserve • Otumutu lagoon boat ramp • Hot water beach campsite |
| Rotomā | <ul style="list-style-type: none"> • Merge boat ramp • Matahi spit boat ramp • Rest stops around inlet (2) • Otangiwao Point |
| Ōkātina | <ul style="list-style-type: none"> • Lodge boat ramp • Main beach in front of lodge |
| Ōkāreka | <ul style="list-style-type: none"> • Acacia Bay boat ramp • Boyes Beach • DOC campsite • Southern Outlet (Ski land beach) • Jumping rocks • South-west walkway |