

I hereby give notice that an ordinary meeting of the  
**Taharoa Domain Governance Committee**

will be held on:

**Date: 11 December 2017**  
**Time: 2.00 pm**  
**Venue: Auditorium, Northern Wairoa War Memorial Hall**  
**37 Hokianga Road, Dargaville**

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## **Open Agenda**

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### **Membership**

Chair: Councillor Andrew Wade  
Members: Messrs Alan Nesbit and Ric Parore  
Councillor Karen Joyce-Paki

### Staff and Associates:

Chief Executive, General Manager Community, Parks and Community Manager, Domain Manager, Financial Services Manager, Administration Assistant (Minute-taker).

**Linda Osborne**  
**Administration Manager**  
[losborne@kaipara.govt.nz](mailto:losborne@kaipara.govt.nz)

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**Ordinary Meeting of Taharoa Domain Governance Committee**

**Monday 11 December 2017**

**1 Opening**

**1.1 Karakia**

**1.2 Present**

At its meeting on 14 November 2017, Kaipara District Council resolved to confirm *'the appointment of Councillor Joyce-Paki to the Taharoa Domain Governance Committee'* (refer to Council minutes 14 November 2017, Item 6.2).

**1.3 Apologies**

**1.4 Confirmation of Agenda**

The Committee to confirm the Agenda.

**1.5 Conflict of Interest Declaration**

Committee Members are reminded of the need to be vigilant to stand aside from decision-making when a conflict arises between their role as a Committee Member/Councillor and any private or other external interest they might have. It is also considered best practice for those members of the Executive Team attending the meeting to also signal any conflicts that they may have with an item before the Committee.

## **2 Deputations and Presentations**

### **2.1 Northland Regional Council : Freshwater Improvement Fund**

**Wil Trusewich, Northland Regional Council**

### **2.2 Northland Regional Council : Kai Iwi Lakes Navigation Safety Bylaw 2017 and consultation on options for five-knot speed limit area**

**Tony Phipps, Northland Regional Council**

#### **Recommended**

*That the Taharoa Domain Governance Committee:*

- 1 Receives the report “Kai Iwi Lakes Navigation Safety Bylaw 2017 and consultation on options for five-knot speed limit area” dated 28 November 2017, from Tony Phipps, Group Manager Customer Service and Community Resilience, Northland Regional Council; and*
- 2 Receives the presentation from Northland Regional Council staff on the Kai Iwi Lakes Navigation Safety Bylaw 2017 speed limit options proposal.*

**File number:** 4702.24 **Approved for agenda**

**Report to:** Taharoa Domain Governance Committee

**Meeting date:** 11 December 2017

**Subject:** **Kai Iwi Lakes Navigation Safety Bylaw 2017 and consultation on options for five-knot speed limit area**

**Date of report:** 28 December 2017

**From:** Tony Phipps, Group Manager Customer Service and Community  
Resilience, Northland Regional Council

**Report purpose**  **Decision**  **Information**

**Assessment of significance**  **Significant**  **Non-significant**

### Summary

The purpose of this report is to brief the Committee on the Kai Iwi Lakes Navigation Safety Bylaw 2017 and on consultation options for five-knot speed limit area.

### Recommendation

*That Kaipara District Council:*

- 1 *Receives the report "Kai Iwi Lakes Navigation Safety Bylaw 2017 and consultation on options for five -knot speed limit area" dated 28 November 2017, from Tony Phipps, Group Manager Customer Service and Community Resilience, Northland Regional Council; and*
- 2 *Receives the presentation from Northland Regional Council staff on the Kai Iwi Lakes Navigation Safety Bylaw 2017 speed limit options proposal; and*

### Reason for the recommendation

That it is part of the role of the Taharoa Domain Governance Committee to consider matters relating to the Kai Iwi Lakes and within the Taharoa Domain.

### Reason for the report

The purpose of this report is to brief the Committee on the Kai Iwi Lakes Navigation Safety Bylaw 2017 and on consultation options for a five-knot speed limit area.

### Background

Northland Regional Council approved the commencement of consultation on the Draft Kai Iwi Lakes Navigation Safety Bylaw (the bylaw) at its 16 May 2017 meeting. At the same meeting, Council approved Councillors Stolwerk, Dimery and Smart to be the hearings panel to consider submissions and make recommendations to Council on the final wording of the bylaw.

A revised version of the bylaw was subsequently approved at Council's 27 June 2017 meeting.

The bylaw was notified in early July 2017 and submissions closed 2 August 2017. Ninety submissions were received. Hearings were held on 7 September 2017 in Dargaville where eight separate submissions were presented to the Hearing Panel. Deliberations were held on 25 September 2017.

A copy of the Bylaw is attached, see **Attachment 1**.

As part of its decision on the bylaw, the Northland Regional Council decided to consult over options for five-knot speed limit area. The 'Navigation Safety Bylaw for Kai Iwi Lakes 2017- Options for five-knot speed limit area' Statement of Proposal document is also attached, see **Attachment 2**.

Submissions close on 28 February 2018.

Northland Regional Council staff will provide a presentation on the Bylaw and speed limit area options proposed.

### **Issues**

See **Attachment 2**.

### **Factors to consider**

#### ***Community views***

Community views are to be sought through the consultation process as outlined in the Statement of Proposal document, see **Attachment 2**.

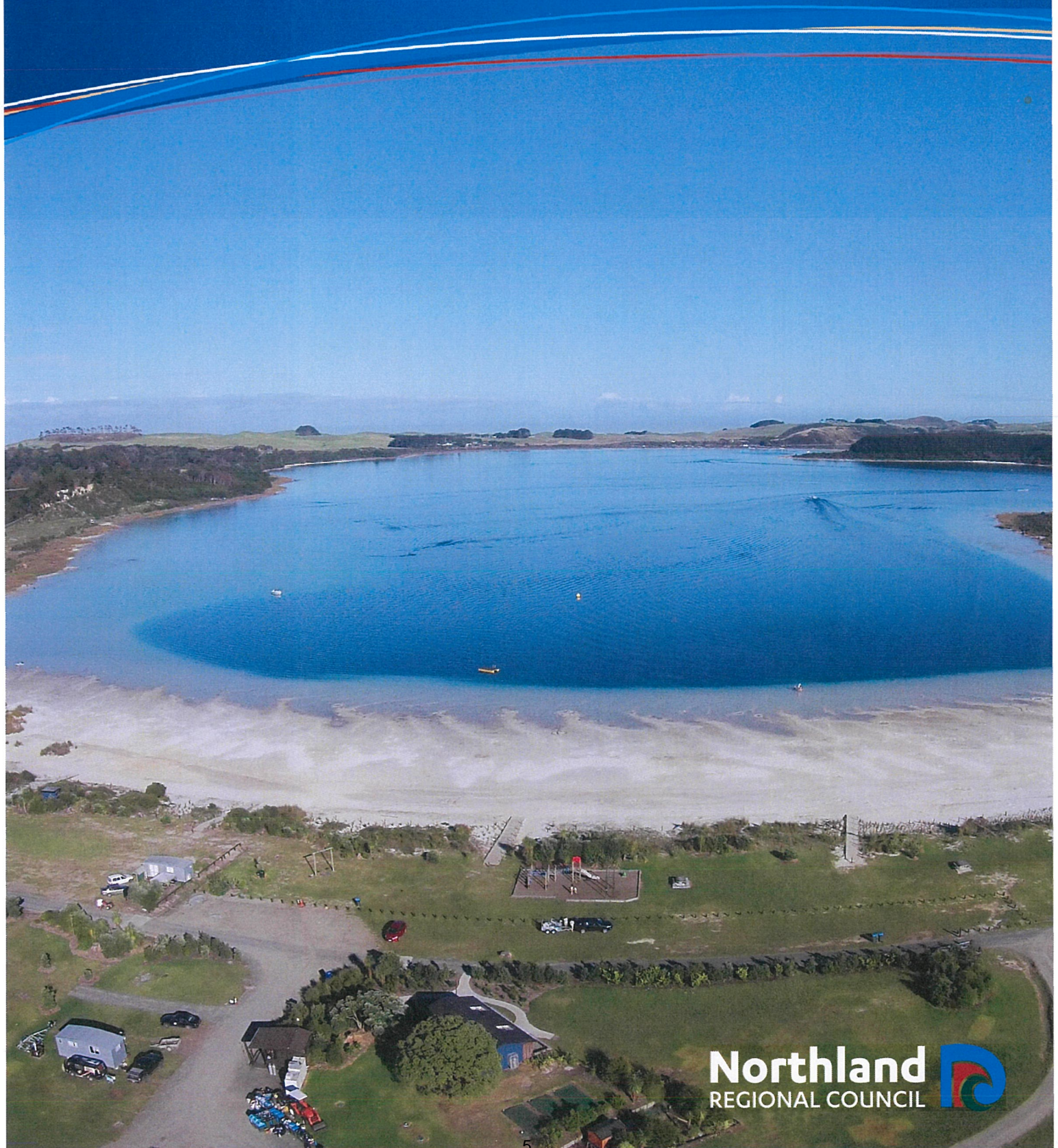
### **Next step**

Taharoa Domain Governance Committee is invited to make a submission on the Kai Iwi Lakes Navigation Safety Bylaw 2017 and options for five-knot speed limit area as it sees fit.

### **Attachments**

- Attachment 1: Kai Iwi Lakes Navigation Safety Bylaw 2017
- Attachment 2: Navigation Safety Bylaw for Kai Iwi Lakes 2017- Options for five-knot speed limit area: Statement of Proposal

# Kai Iwi Lakes Navigation Safety Bylaw 2017

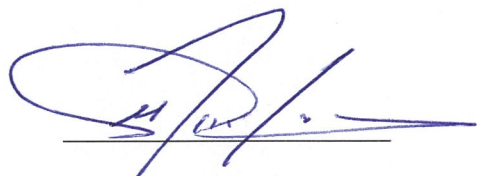


## **Kai Iwi Lakes Navigation Safety Bylaw 2017**

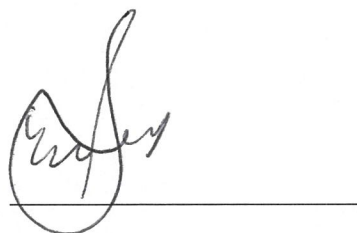
Pursuant to Section 33M of the Maritime Transport Act 1994 and all other powers vested in it, the Northland Regional Council makes the following Bylaw.

This bylaw was confirmed at a meeting of the council held on 24 October 2017 and ordered to come in to force on 1 November 2017.

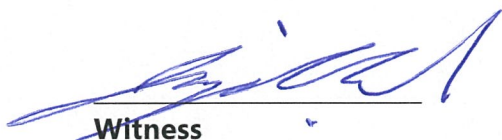
The common seal of the Northland Regional Council was hereto affixed in the presence of:



Malcolm Nicholson  
**Chief Executive Officer**

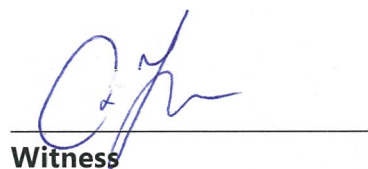


Bill Shepherd  
**Chairman**



**Witness**

Name: Jonathan Gibbard  
GM - Strategy &  
Governance



**Witness**

Name: Chris Taylor  
Governance Support Manager



## **Kai Iwi Lakes Navigation Safety Bylaw 2017**

Pursuant to Section 33M of the Maritime Transport Act 1994 and all other powers vested in it, the Northland Regional Council makes the following Bylaw.

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Malcolm Nicholson  
**Chief Executive Officer**



Bill Shepherd  
**Chairman**

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# 1 Preliminary provisions

## 1.1 Title and commencement

- (1) Pursuant to the provisions of the Maritime Transport Act 1994, the Northland Regional Council makes this Kai Iwi Lakes Navigation Safety Bylaw 2017.
- (2) This Bylaw comes into force on 1 November 2017.

## 1.2 Application

- (1) This bylaw applies to the lakes in the Taharoa Domain in the Kaipara district of Northland, comprising Lake Waikare, Lake Taharoa and Lake Kai Iwi. These lakes are popularly and commonly known as the Kai Iwi Lakes and are henceforth referred to as the “Kai Iwi Lakes” or as “the lakes” in this bylaw.

## 1.3 Interpretation and definitions

In this bylaw:

**Access lane** means an area designated as an access lane in schedule 1 of this bylaw.

**Accident** has the same meaning as in section 2 of the Act.

**Act** means the Maritime Transport Act 1994.

**Anchor/anchoring/anchored** means the temporary securing of a vessel to the bed of the waterway by means of an anchor, or other device that is removed with the vessel when it leaves the site or anchorage.

**Anchorage in relation to vessels** means a place set aside in the lakes for the anchoring of vessels to the bed of the waterway.

**Authorised officer** means any person to whom the Northland Regional Council has delegated authority to act under this bylaw.

**Board sports** means any board sport, including windsurfing, sailboarding, kiteboarding, stand-up paddle boarding, knee boarding and body boarding where the means of propulsion is by wind, waves or other natural forces, or where no mechanical means of propulsion is used.

**Buoy** means a float secured to the seabed serving as an aid to navigation or serving to mark an area set aside for a specific purpose or to indicate a hazard.

**Council** means the Northland Regional Council or any person delegated or authorised to act on its behalf.

**Director** means the person who is for the time being the Director of Maritime New Zealand under Section 439 of the Maritime Transport Act 1994.

**Enforcement officer** means a person appointed as an enforcement officer under section 33G of the Act.

**Flag A** means Flag A of the International Code of Signals (the divers' flag), a burgee (swallow-tailed) flag coloured in white and blue, or a rigid replica, with white to the mast. A flag exhibited on a vessel must be not less than 600mm by 600mm. For divers not swimming from a vessel, or more than 200 metres from a vessel, a dive Flag A on a float must be used. The Flag A must be exhibited on a float which must be red, yellow or orange coloured, minimum size 10 litres; this equipment must be fitted with a divers' Flag A of at least 200mm x 200mm and be self-righting.

**Harbourmaster** has the same meaning as in Section 2 of the Act.

**Honorary enforcement officer** has the same meaning as in Section 33G of the Act.

**Lakes** means those inland waters within the Taharoa Domain, namely Lake Kai Iwi, Lake Taharoa and Lake Waikare.

**Maritime rule** means a rule made pursuant to Part 4 of the Act.

**Navigate** means the act or process of managing or directing the course of a vessel on, through or over the water.

**Obstruction** means an object, equipment, structure, vessel or person, positioned, whether in the water or not, so as to restrict or prevent navigation of a vessel or cause a hazard to others.

**Owner** has the same meaning as in section 2 of the Act.

**Paddle craft** means a vessel powered only by use of a single or double bladed paddle as a means of propulsion without the aid of a fulcrum provided by rowlocks, thole pins, crutches or like arrangements. A paddle craft includes a kayak, canoe, stand-up paddle board, waka, dragon boat and other such craft.

**Person in charge** of a vessel means:

- (a) the master or skipper of the vessel;
- (b) in the absence of an identified master or skipper, the owner of the vessel who is on board or the person steering the vessel;
- (c) in the case of a child under the age of 15 years, the person in charge will be the parent or guardian of the child.

**Personal flotation device** means any buoyancy aid that is designed to be worn on the body that meets:

- (a) a standard in NZS 5823:2005 Specification for buoyancy aids and marine safety harnesses and lines applicable to such buoyancy aids;
- (b) a national or international standard that the director is satisfied substantially complies with a standard in NZS 5823:2005 Specification for buoyancy aids and marine safety harnesses and lines applicable to such buoyancy aids.

**Personal water craft** has the same meaning as in section 33B of the Act. These craft are commonly known as jet skis.

**Public Notice** means a formal notice published in a newspaper circulating in the Kaipara District.

**Power-driven vessel** means any vessel propelled by machinery.

**Raft** means an inflatable vessel manoeuvred by oars or paddles (or a combination thereof) but does not include inflatable kayaks, sledges or tubes.

**Reserved area** means any area reserved for a specific purpose under this bylaw.

**Sailboard** means any type of board, including a windsurfer or kiteboard, which is propelled by a sail and operated by a person standing upright on a board.

**Seaplane** has the same meaning as in Section 2 of the Act.

**Seaworthiness** means being, in the opinion of the Harbourmaster, in a fit condition of readiness to be able to be safely used on the lakes.

**Shore** when referring to distance from shore, means the water's edge.

**Speed** means speed over the ground.

**Speed uplifting** means an authorisation by the Harbourmaster to increase/change, or otherwise alter, the speed provision under this bylaw.

**Swimming area** means an area on the water that is set aside for the purposes of swimming only. The areas designated as swimming areas are identified in Schedule 1 of this bylaw.

**Sunrise/sunset** has the same meaning as stated in the New Zealand Nautical Almanac, NZ204.

**Support vessel** means any vessel used for coaching, marshalling and rescue attendance for a sporting event, training activity, ceremonial or other authorised customary event.

**TDGC** refers to the Taharoa Domain Governance Committee.

**Towing a person** for the purpose of this bylaw means the towing of a person behind a vessel using, for example, water skis, sea biscuit, wake board or similar.

**Underway** means that a vessel is not at anchor, or made fast to the shore, or aground.

**Vessel** means every description of a ship, boat or a craft used in navigation on the water, whether or not it has any means of propulsion; and includes a:

- (a) seaplane while on the surface of the water;
- (b) personal watercraft (jet ski);
- (c) raft;
- (d) paddle craft; or
- (e) any board used for board sports.

## **2 Carriage and wearing of personal flotation devices on vessels**

### **2.1 Carriage of personal flotation devices**

- (1) A person in charge of a vessel must not use it unless there are sufficient personal flotation devices for each person on board at all times that the vessel is in use.
- (2) Personal flotation devices must be:
  - (a) in a readily accessible location on board the vessel;
  - (b) of an appropriate size for each person on board; and
  - (c) in good operative condition.

### **2.2 Wearing of personal flotation devices**

- (1) Every person on board a vessel must wear a properly secured personal flotation device of an appropriate size for that person at all times when the vessel is underway.

### **2.3 Exemptions to the compulsory carriage of personal flotation devices**

- (1) Section 2.2 does not apply to:
  - (a) any board sport, provided a wetsuit or tether/leash appropriate for the conditions is worn;
  - (b) a diver on a vessel that is used for diving when the diver is wearing a wetsuit;
  - (c) a person training for or participating in a sporting event, if the training or the event is supervised in accordance with a safety system of an organisation approved by the Director;
  - (d) a sporting event, training activity, ceremonial or other authorised customary event if:
    - i. the Harbourmaster has granted prior written exemption; and
    - ii. a support vessel that is capable of providing adequate assistance in the event of an emergency remains in the immediate vicinity of the vessel, and the vessel or support vessel or both must carry personal flotation devices of an appropriate size for each person on board the vessel.

### **2.4 Wearing of personal flotation devices by persons being towed**

- (1) The person in charge of the vessel and any person being towed are both responsible for ensuring that the person being towed wears a properly secured personal flotation device of an appropriate size for that person.

## **3 General navigation safety requirements**

### **3.1 Person in charge of the vessel**

- (1) The person in charge of a vessel is responsible for the safety and wellbeing of every person on board and for the safe operation of the vessel, including the carriage and wearing of personal flotation devices by persons on board the vessel and anyone being towed.
- (2) The person in charge of a vessel must not:

- (a) be under the influence of alcohol or a drug, or both, to such an extent as to be incapable of having proper control of the vessel;
- (b) cause or permit any act to be done in a manner which causes any unnecessary danger or risk to any other vessel or person in the water, irrespective of whether or not any injury or damage occurs.

### 3.2 Minimum age for operating power-driven vessel

- (1) The owner or person in charge of a vessel that is able to exceed a proper speed of 10 knots must not allow any person below the age of 15 years to be in charge of that vessel, unless they are under the direct supervision of a person:
  - (a) who is 15 years or older; and
  - (b) who is in immediate reach of the controls; and who is not the lookout person required under this bylaw when another person is being towed.

### 3.3 Speed of vessels

- (1) A person in charge of a vessel must not operate a vessel at a speed exceeding five knots within:
  - (a) 50 metres of any other vessel;
  - (b) 50 metres of any person in the water;
  - (c) 200 metres of any vessel that is exhibiting Flag A.
- (2) A person in charge of a power-driven vessel must not operate the vessel at a speed exceeding five knots while another person has any portion of his or her body extending over the bow or side of that vessel.
- (3) The provisions of (1) above do not apply to:
  - (a) An emergency response vessel, Harbourmaster vessel, or police vessel if the vessel's duties cannot be performed in compliance with those provisions;
  - (b) A vessel operating in an access lane or a reserved area for the purpose for which the access lane or reserved area was declared.

**Advice Note:** *A person must not operate any vessel in breach of Maritime Rule 91.6 made under the Maritime Transport Act 1994 – that is:*

*(1) No person may, without reasonable excuse, propel or navigate a vessel (including a vessel towing a person or an object) at a proper speed exceeding five knots within 200 metres of the shore or of any structure.*

### 3.4 Vessels to be seaworthy

- (1) The person in charge of a vessel, whether underway or at anchor, must keep the vessel in a seaworthy condition at all times.
- (2) Except in an emergency or following an accident or incident, a person must not operate a vessel that is unseaworthy, except to comply with the directions of the Harbourmaster to move that vessel to an alternative location.
- (3) If a vessel is not seaworthy or has the potential to cause a hazard to navigation, the Harbourmaster may give a direction to the person in charge of the vessel to move it to an alternative location or remove it from navigable waters within a reasonable time.

- (4) If the person in charge of the vessel fails to comply with the direction of the Harbourmaster, or if the owner or person in charge of the vessel cannot be located, the Harbourmaster may, at the owner's cost, move that vessel to a position where it is no longer a hazard, or remove it from the water and dispose of it.

### **3.5 Collision prevention**

- (1) A person must not operate any vessel in breach of Maritime Rule Part 22 (Collision Prevention) made under the Maritime Transport Act 1994.
- (2) In general, all vessels must proceed in an anticlockwise direction around the lakes where practicable.

### **3.6 Notification of accident**

- (1) The owner and/or person in charge of a vessel that has been involved in an accident must report the details of the accident to the Harbourmaster (verbally notified within 24 hours and notified in writing within 48 hours) when:
  - (a) the accident has caused damage to another vessel, or a navigation aid or any structure;
  - (b) a vessel has been sunk or grounded or become stranded in navigable waters;
  - (c) by reason of accident, fire, defect or otherwise, the vessel cannot be safely operated; or
  - (d) any person has been injured.
- (2) The report must include: a full description of any injury to persons, their names and contact details; and
  - (a) a full description of any damage to vessels or structures; and
  - (b) the names and contact details of the person in charge of the vessels involved.

## **4 Activities**

### **4.1 Swimming areas**

- (1) Within any designated swimming area, no power-driven vessels are allowed to operate or anchor.

### **4.2 Water skiing and towing of persons**

- (1) A person in charge of a vessel used for towing another person must have at least one other person on board acting as a lookout, who is 10 years of age or older, and who is responsible for immediately notifying the person in charge of the vessel of every mishap that occurs to the person and/or object that is being towed.
- (2) A person in charge of a vessel must not tow any person or object between sunset and sunrise.
- (3) A person in charge of a vessel must not permit the vessel to continue onwards after any person being towed by that vessel has dropped (whether accidentally or otherwise) any water ski or similar object, in a location where it could cause danger to any other person or vessel, unless:



- (a) the person in charge immediately takes action to recover that water ski or similar object; or
  - (b) the dropped ski or similar object is clearly visible to any other water user operating within the vicinity.
- (4) A person must not allow himself or herself to be towed by a vessel unless in compliance with this clause.

### **4.3 Dive activities**

- (1) The master of every vessel from which dive operations are in progress must ensure that Flag A is displayed on the vessel in such a manner that it can be clearly identified by an operator of another vessel at a distance exceeding 200 metres, and ensure that the vessel remains within 200 metres of divers.
- (2) Every person diving from a vessel must ensure that Flag A is displayed on the vessel in such a manner that it can be clearly identified by the operator of another vessel at a distance of 200 metres.
- (3) Every person diving from a vessel must ensure that they remain within a 200 metre horizontal radius of Flag A being exhibited, unless they additionally are attached to a dive Flag A on a float as defined in section one.
- (4) Every person who dives unaccompanied by a vessel or dives from the shore, such as when snorkelling, freediving or spear fishing, where there exists a likelihood of passing vessel traffic, must ensure that Flag A is displayed on a buoy in the water within close proximity to the diver in such a manner that it can be clearly identified by the person in charge of another vessel at a distance exceeding 200 metres.

### **4.4 Wake of vessels**

- (1) A person in charge of a recreational vessel must ensure that the vessel's wake or the wake from any person or object being towed:
- (a) does not prevent other people from safely using the navigable water;
  - (b) does not cause danger or risk of damage to other vessels, structures, or navigation aids; and
  - (c) does not cause any risk of harm to any other person.

### **4.5 Access lanes**

- (1) Access lanes
- (a) Subject to the provisions of the Resource Management Act 1991, the council may, from time to time, declare by Public Notice that a specified area or areas are to be an access lane for the purpose of high-speed access to and from the shore.
- (2) Conduct in access lanes
- (a) No person shall propel, navigate, or manoeuvre a vessel in an access lane for the purpose for which it is declared, except by the most direct route through the access lane and on that side of the access lane that lies to the starboard (right) side of the vessel;
  - (b) No person within an access lane shall proceed in a manner that is dangerous in relation to any vessel or other person in the access lane;

- (c) No person shall obstruct any other person while that other person is using an access lane for the purpose for which it has been declared;
  - (d) If one or more persons are using an access lane for the purpose for which it is declared, no person may enter, remain in, or use the lane for any other purpose;
  - (e) The access lanes to which this bylaw applies are those prescribed in Schedule 1.
- (3) Marking of access lanes
- (a) Every access lane must be demarcated by:
    - i. orange posts with horizontal black bands on the shore; and
    - ii. orange posts with black bands if the access lane is marked at its outer edge; and
    - iii. an adequate sign or signs in the vicinity of the access lane that declare the purpose of that lane.

#### **4.6 Reserved areas**

- (1) Reserved areas generally
- (a) The council, on application or of its own mind, may from time to time, by Public Notice, and in the interests of navigation safety, reserve any specified area for a specific purpose.
  - (b) A reservation under this bylaw may be made on such conditions, and for such period or periods, as the council may specify in the notice.
- (2) Reserved area for special events
- (a) Any person intending to conduct a race, speed trial, competition, or other organised water activity in any area to which this bylaw applies, may apply to the Harbourmaster to:
    - i. temporarily suspend the application of clause 3.3 in part, or in total, in that area for the purposes of facilitating the event;
    - ii. temporarily reserve the area for the purpose of that activity.
  - (b) Where the Harbourmaster is satisfied that the application may be granted without endangering the public, he or she may grant the application accordingly for a period not exceeding 10 days and on such conditions as he or she may specify;
  - (c) No grant of an application shall have effect unless, not less than seven days or more than 14 days before the commencement of the activity, a Public Notice is given specifying the period of the activity and details of the suspension or reserved area;
  - (d) The council may recover from the Applicant all actual and reasonable costs associated with the application, including any monitoring and advertising.

#### **4.7 Conduct in reserved areas**

- (1) A person must not enter into a reserved area for any other purpose than that specified by the Harbourmaster.
- (2) If any person is using a reserved area for the purpose for which it is specified, no other person or vessel may obstruct that user, or enter, remain in or use the area, for any other purpose unless with the approval of the Harbourmaster.

## 5 Operating requirements

### 5.1 Seaplanes

- (1) A person in charge of a vessel must not impede a seaplane in the process of landing or taking off.
- (2) Except in an emergency, a person must not take off, land, or attempt to take off or land, a seaplane without the permission of the Harbourmaster.

### 5.2 Vessels to be adequately moored or secured

- (1) No person shall anchor or moor a vessel in any navigable water in such a manner that it may break free, drag anchor or cause a navigational safety hazard.
- (2) No person shall cut, break, or destroy:
  - (a) the mooring or anchor of any vessel; or
  - (b) the fastening securing any vessel lying in a dock, or at or near a wharf or landing place.

## 6 Administration matters

### 6.1 Registration of personal water craft (jet ski)

- (1) Personal water craft (jet skis) must display a unique identification number obtained through a current and acceptable registration with any regional council.<sup>1</sup>

### 6.2 Aids to navigation

- (1) A person must not tie a vessel to any aid to navigation.
- (2) A person must not damage, remove, deface or otherwise interfere with, any aid to navigation or signs.

### 6.3 Appointment of officers

- (1) The council may appoint persons as enforcement officers or honorary enforcement officers. Such persons are authorised to enforce the provisions of this bylaw as per the powers accorded to them through warrants.
- (2) While exercising any right, or performing any duty pursuant to this bylaw, the enforcement or honorary enforcement officer shall carry a warrant of appointment and shall as soon as it is practicable produce it to any person when asked to do so.

### 6.4 Bylaw breaches

- (1) A person who fails to comply with this bylaw commits a breach of this bylaw and is liable to a penalty under the Act and maritime rules and regulations.
- (2) A person who fails to comply with an instruction given to that person by the Harbourmaster, an enforcement officer, honorary enforcement officer, or the police, under this bylaw commits a breach of this bylaw and is liable to a penalty under the Act and maritime rules and/or the Local Government Act 2002 and regulations.

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<sup>1</sup> Auckland Council runs the closest registration system.

- (3) The owner and person in charge of a vessel are jointly and severally responsible for compliance with this bylaw.
- (4) If no person is placed in charge of a vessel, the owner of the vessel is responsible for compliance with this bylaw.

## **6.5 Liability of the council**

- (1) The council is not liable for:
  - (a) any damage to vessels used on the lakes;
  - (b) any damage to a vessel which results from any actions taken by the Harbourmaster, his delegate or an enforcement officer, to secure a vessel in the event of an adverse event.
- (2) The council is not liable for any damage to a vessel that the Harbourmaster, his delegate, or an enforcement officer, secures or removes under this bylaw or under the Act.

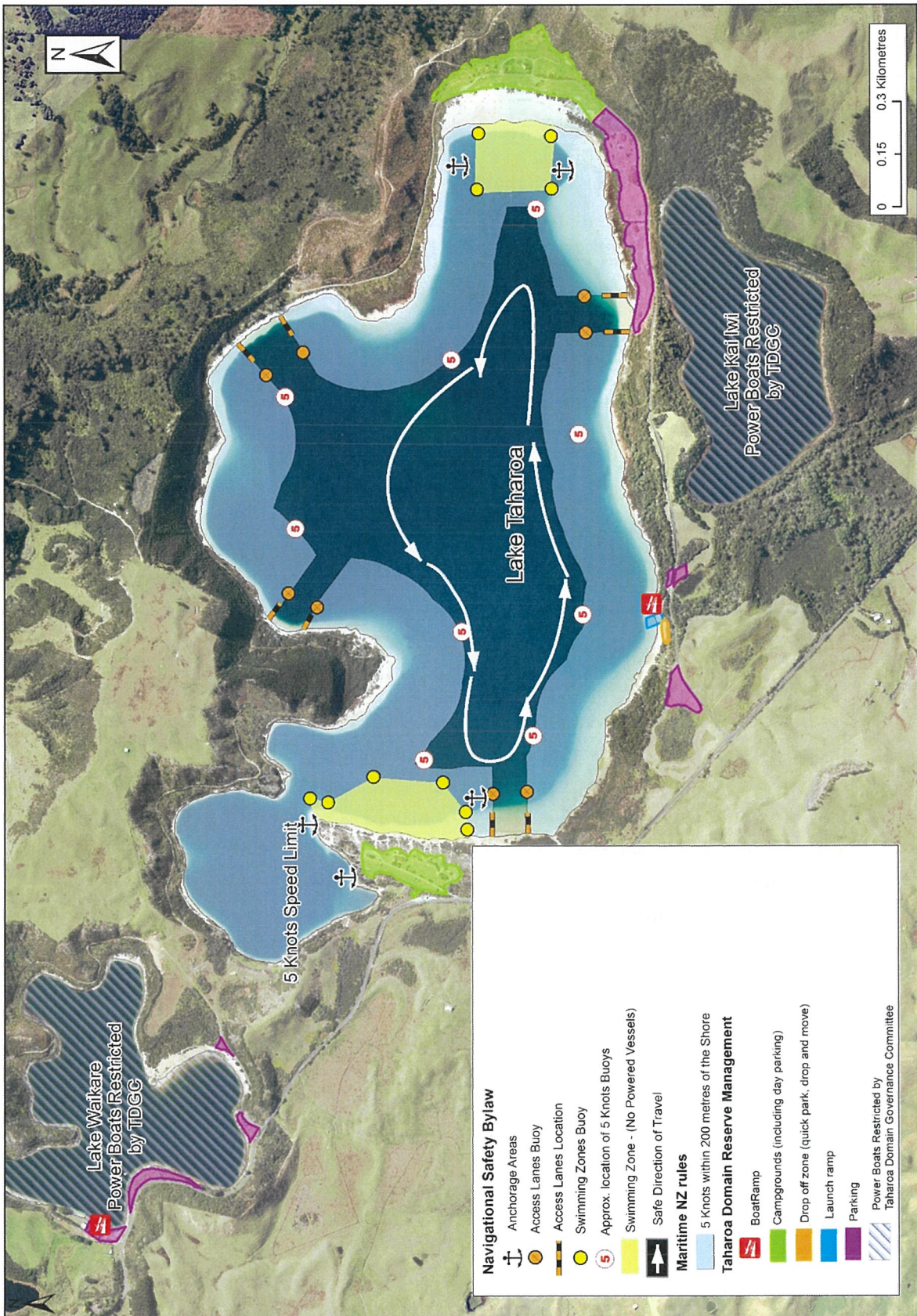
## **6.6 Intervention by the Harbourmaster**

- (1) In any case where the Harbourmaster, his delegate or an enforcement officer, is not satisfied adequate precautions have been taken to ensure the health or safety of any person or the public or to avoid damage to any vessel, structure, wharf or the environment, the Harbourmaster, his delegate or an enforcement officer, may prohibit or restrict the activity until they are satisfied that adequate precautions have been taken.

## **6.7 Exemptions and other provisions**

- (1) The Harbourmaster may exempt by written approval, any person, vessel or class of vessels, from any requirements of this bylaw.
- (2) In granting any written exemption to any clause of this bylaw, the Harbourmaster must consider the effects of the exemption on public health and safety.
- (3) The Harbourmaster may revoke any exemption at any time the Harbourmaster has reason to believe public health or safety has been, or may be, adversely affected.
- (4) To avoid doubt, compliance with this bylaw does not remove the need to comply with all other applicable Acts, regulations, bylaws, and rules of law.
- (5) Unless the context requires another meaning, a term or expression that is defined in the Act or maritime rule and used in this bylaw, but not defined, has the meaning given by the Act or maritime rule.

# Schedule 1: Kai Iwi Lakes map



# Navigation Safety Bylaw for Kai Iwi Lakes 2017

## Options for five-knot speed limit area



## Introduction

This document is the Statement of Proposal<sup>1</sup> for a proposed change to the five-knot speed restriction area in Lake Taharoa within the Navigation Safety Bylaw for Kai Iwi Lakes 2017 (the bylaw). It sets out the options and their respective merits, the legal requirements for changing the bylaw, and how you can have your say.

Taharoa Domain is a 538 hectare recreation reserve vested in Kaipara District Council. The Domain features three lakes: Lake Taharoa, Lake Kai Iwi and Lake Waikare (the Lakes). The Lakes are a popular destination for a range of recreational activities.

The Northland Regional Council approved the bylaw on 24 October 2017. During the consultation on the bylaw, many submitters said they wanted the five-knot speed restriction from the shoreline reduced from 200 metres to 100 metres right around Lake Taharoa. This change cannot be made without further consultation<sup>2</sup> and council has decided there is sufficient merit in the idea to warrant specific consultation on options for the five-knot speed restriction limit.

## The options

Council is consulting on two options for the five-knot speed limit near the shoreline around Lake Taharoa:

1. Status quo - keep it to 200 metres from shore
2. Reduce it to 100 metres from shore

Refer to **Appendix 1** for the proposed wording changes and map for each option.

The proposed wording changes do not alter council's determination<sup>3</sup> that a bylaw is the most appropriate way of addressing the issue of safety on the lakes. Please see the Statement of Proposal and Navigation Safety Bylaw for Kai Iwi Lakes [www.nrc.govt.nz/lakesbylaw](http://www.nrc.govt.nz/lakesbylaw)

Potentially there could be a combination of both a 100 metre and 200 metre limit around the lake's shoreline, although council's preference is to keep it simple and for it to be one or the other.

The 200 metre five-knot speed limit is the status quo and has been the case since the expiry of the 'Kai Iwi Lakes Bylaw No.1 2000' in 2010, which had a 100 metre limit. The current Navigation Safety Bylaw for Kai Iwi Lakes 2017 doesn't set a limit – the 200 metre limit is the default limit under Maritime Rules Part 91<sup>4</sup>.

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<sup>1</sup> Under the *Local Government Act 2002*, council is required to release a 'Statement of Proposal' when consulting on a change to a bylaw.

<sup>2</sup> The option sought by submitters wasn't included in the Statement of Proposal' for the Draft Navigation Safety Bylaw for Kai Iwi Lakes'. This option sought requires the approval of the Director of Maritime NZ and they have indicated that they would not approve this option without specific public consultation.

<sup>3</sup> Made under Section 155 of the *Local Government Act 2002*.

<sup>4</sup> The Maritime Rules Part 91 are issued by Maritime New Zealand and are a set of basic navigation standards. They are issued under section 36(t) and (tb) of the *Maritime Transport Act 1994*.

## Option 1 - 200 metres

This is the status quo. The arguments in support of keeping the 200 metre limit include:

- The same limit is used in the regional navigational safety bylaw covering the coastal area – and this reduces the potential for confusion
- The occurrence of incidents/accidents between powered vessels and swimmers/non-powered vessels will be lower
- It provides an increased area of the lake where low-speed water based activities can operate without high-speed vessels.

## Option 2 - 100 metres

The arguments for a 100 metre limit include:

- It will improve safety for water-skiers and vessel users by:
  - Allowing water skiers into more sheltered waters nearer the shore
  - Decreasing congestion – it would increase the usable space on Lake Taharoa for powered vessels by 50% (from 52 hectares to 98 hectares) and reduce the occurrence of incidents/accidents amongst powered vessel users.

## Changing the bylaw

National maritime rules are set by Maritime New Zealand. The *Maritime Transport Act 1994* enables regional councils to make bylaws to provide for local conditions<sup>5</sup>.

The *Local Government Act 2002* sets out the procedure for making and changing bylaws<sup>6</sup>. Because there's likely to be significant public interest in the proposed amendment, council is required to release a Statement of Proposal<sup>7</sup> and provide people with an opportunity to share their views (in writing and in person)<sup>8</sup>. The next section explains how people can have their say.

If council decides 100 metres is the preferred option, an application will then be made to the Director of Maritime NZ for a 'permanent speed uplift'. This is because the 100 metres is a divergence from the Maritime Rules Part 91 default of 200 metres. If the director does not approve the application, then the default of 200 metre limit will remain in place.

## Have your say

A copy of this document is available free from any of the council's offices, or on the council's website: [www.nrc.govt.nz/lakesbylaw](http://www.nrc.govt.nz/lakesbylaw)

The council offices are located at:

- Main Office: 36 Water St, Whangārei | Ph 09 470 1200

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<sup>5</sup> Section 33M.

<sup>6</sup> Sections 155-157.

<sup>7</sup> This document is a Statement of Proposal. It sets out the proposed amendments and the reasons for them.

<sup>8</sup> Section 83, *Local Government Act 2002*



- Ōpua Office: Unit 10, Ōpua Marine Park, Ōpua | Ph 09 402 7516
- Dargaville Office: 42 Hokianga Rd, Dargaville | Ph 09 439 3300
- Kaitāia Office: 192 Commerce Street, Kaitāia | Ph 09 408 6600
- Waipapa Office: Shop 9, 12 Klinac Lane, Waipapa | Ph 09 470 1200

## Written submissions

Anyone can make a written submission - you can:

- Do it online at [www.nrc.govt.nz/lakesbylaw](http://www.nrc.govt.nz/lakesbylaw) (we encourage online feedback as it reduces our costs for processing the feedback we get)
- Email us at [submissions@nrc.govt.nz](mailto:submissions@nrc.govt.nz)
- Or mail your submission to: Kai Iwi Lakes bylaw submission, Northland Regional Council, Private Bag 9021, Whangārei Mail Centre, Whangārei 0148.

**Your submission should reach the council by 5 p.m. on the 28<sup>th</sup> February 2018.**

Please note, we will <u>not</u> be holding hearings. Instead of hearings we'll be holding a "Have your say" event – see below for details
---

## Kai iwi lakes open day

On Saturday 27 January 2018, there'll be an open day at Lake Taharoa attended by some council staff and councillors. We'll have more details closer to the time at [www.nrc.govt.nz/lakesbylaw](http://www.nrc.govt.nz/lakesbylaw).

## Have your say event

On 22 and/or 23 February 2018 we'll be hosting a "Have your say" event in Dargaville, where you can come and share your views with the councillors who'll be making the decision about which option to proceed with. You'll need to register with us by 31 January 2018 if you'd like to attend this event – email [submissions@nrc.govt.nz](mailto:submissions@nrc.govt.nz).

## Appendix 1 – Wording of two options

This section sets out the proposed wording changes to the Navigation Safety Bylaw for Kai Iwi Lakes 2017 and the associated maps for the two options. New text is underlined and deletions are ~~strikethrough~~. The remainder of the bylaw remains as approved by council on 24 October 2017, and can be found on our website: [www.nrc.govt.nz/lakesbylaw](http://www.nrc.govt.nz/lakesbylaw)

### Option 1 - 200 metres

#### 3.3 Speed of vessels

- (1) A person in charge of a vessel must not operate a vessel at a speed exceeding five knots within:
  - (a) 50 metres of any other vessel;
  - (b) 50 metres of any person in the water;
  - (c) 200 metres of any vessel that is exhibiting Flag A;
  - (d) 200 metres of the shore.
- (2) A person in charge of a power-driven vessel must not operate the vessel at a speed exceeding five knots while another person has any portion of his or her body extending over the bow or side of that vessel.
- (3) The provisions of (1) above do not apply to:
  - (a) An emergency response vessel, Harbourmaster vessel, or police vessel if the vessel's duties cannot be performed in compliance with those provisions;
  - (b) A vessel operating in an access lane or a reserved area for the purpose for which the access lane or reserved area was declared.

**Advice Note:** ~~A person must not operate any vessel in breach of Maritime Rule 91.6 made under the Maritime Transport Act 1994 – That is:~~

- ~~• (1) No person may, without reasonable excuse, propel or navigate a vessel (including a vessel towing a person or an object) at a proper speed exceeding five knots within 200 metres of the shore or of any structure.~~

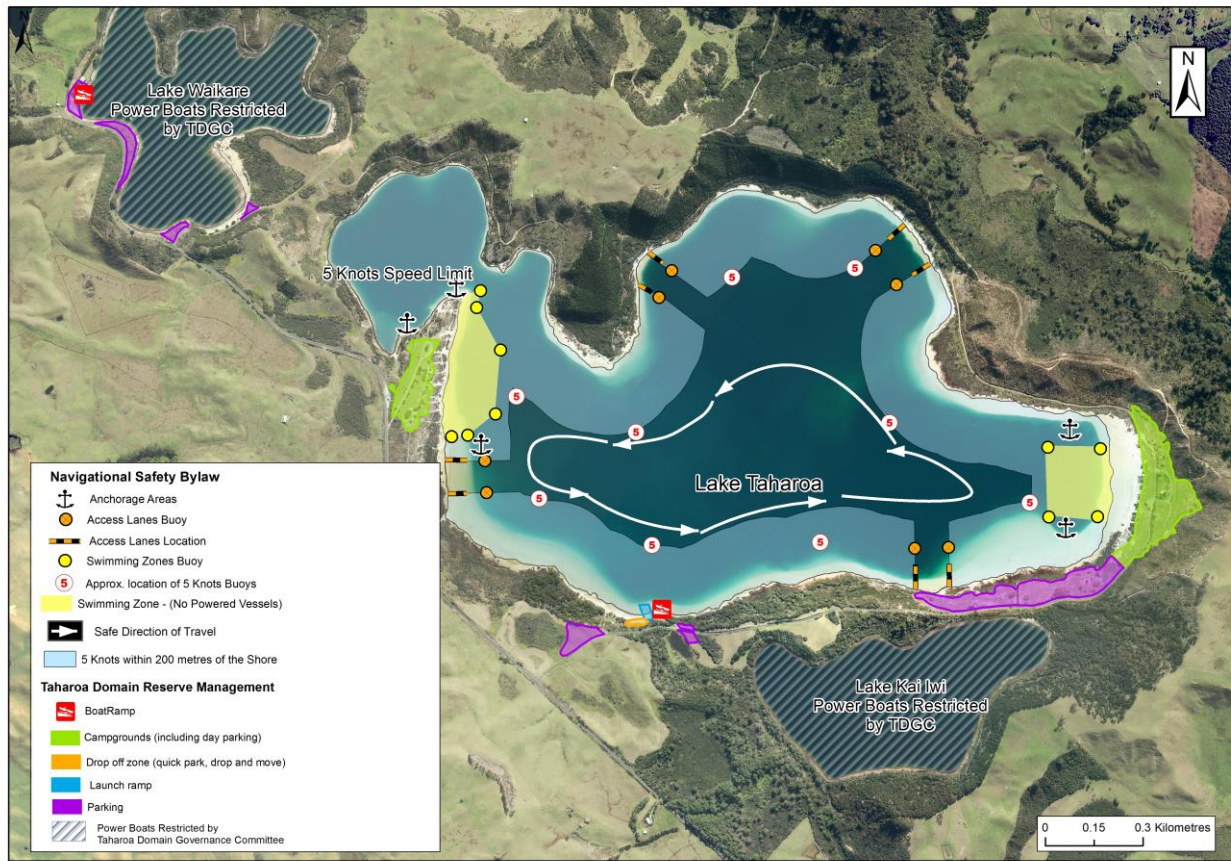


Figure 1: Option 1 - 200 metres

## Option 2 - 100 metres

### 3.3 Speed of vessels

- (1) A person in charge of a vessel must not operate a vessel at a speed exceeding five knots within:
  - (a) 50 metres of any other vessel;
  - (b) 50 metres of any person in the water;
  - (c) 200 metres of any vessel that is exhibiting Flag A;
  - (d) 100 metres of the shore;
- (2) A person in charge of a power-driven vessel must not operate the vessel at a speed exceeding five knots while another person has any portion of his or her body extending over the bow or side of that vessel.
- (3) The provisions of (1) above do not apply to:
  - (a) An emergency response vessel, Harbourmaster vessel, or police vessel if the vessel's duties cannot be performed in compliance with those provisions;
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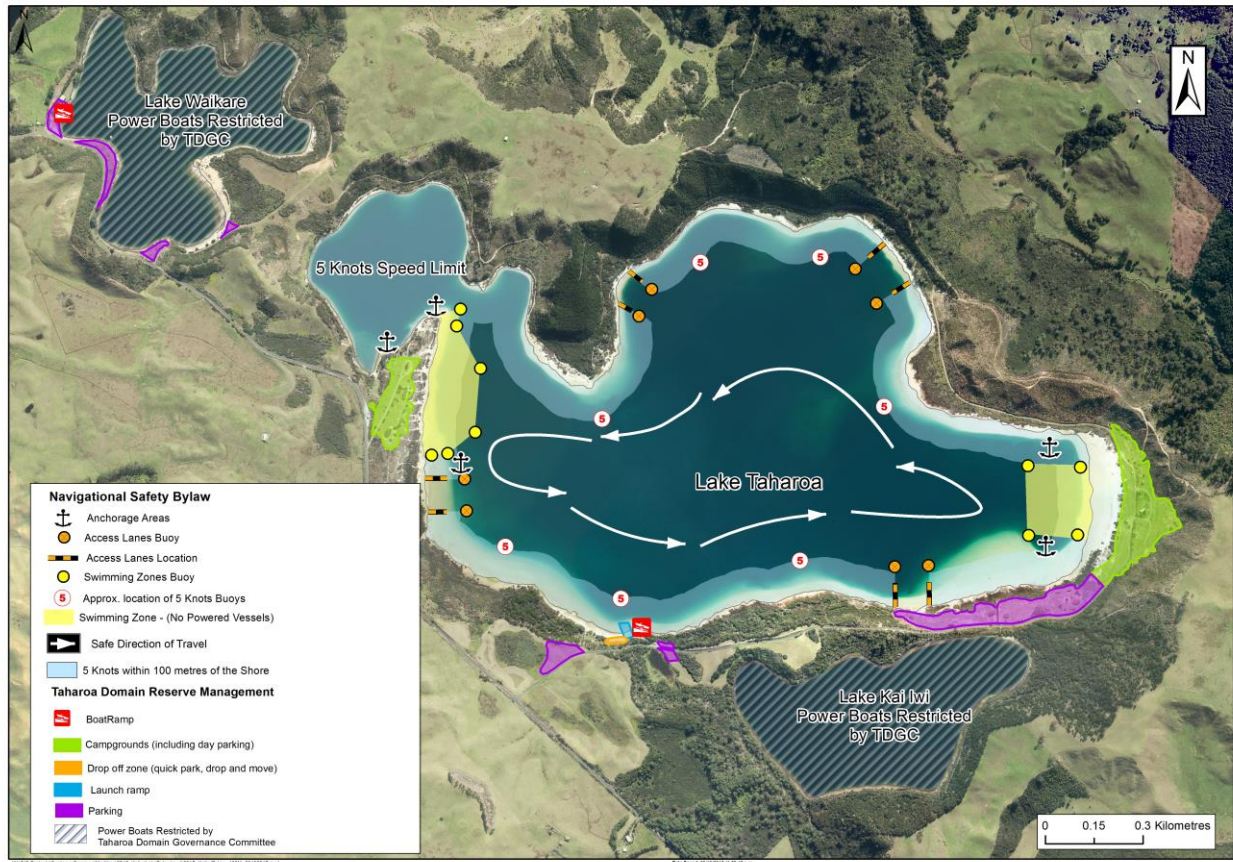


Figure 2: Option 2 - 100 metres

### **3 Confirmation of Minutes**

#### **3.1 Taharoa Domain Governance Committee Minutes 10 August 2017**

**Democratic Services Manager                      1606.17**

#### **Recommended**

*That the Minutes of the Taharoa Domain Governance Committee meeting on 10 August 2017 be confirmed as a true and correct record.*

## Minutes

<b>Meeting</b>	Taharoa Domain Governance Committee
<b>Date</b>	Thursday 10 August 2017
<b>Time</b>	Meeting commenced at 2.10 pm Meeting concluded at 3.57 pm
<b>Venue</b>	Northern Wairoa War Memorial Hall – Hokianga Road, Dargaville
<b>Status</b>	Unconfirmed

### Membership

Chair: Councillor Andrew Wade

Members: Messrs Alan Nesbit and Ric Parore, Mayor Greg Gent

Staff and Associates:

General Manager Community, Parks and Community Manager, Domain Manager, Administration

Assistant (minute-taker)

**Seán Mahoney**  
**Democratic Services Manager**

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Unconfirmed

**Ordinary Meeting Taharoa Domain Governance Committee**
**Thursday 10 August 2017**
**1 Opening**
**1.1 Karakia**

Ric Parore opened with a karakia.

**1.2 Present**

Councillor Andrew Wade (Chair), Mister Ric Parore, Mayor Greg Gent.

**In Attendance**

Name	Designation	Item(s)
Venessa Anich	General Manager Community	All
Sue Hodge	Parks and Community Manager	All
Andrew Howells	Domain Manager	All
Gary Treadgold	Area Manager Dargaville, Northland Regional Council	All
Kane McElrea	Biosecurity Projects Manager, Northland Regional Council	All
Lisa Hong	Administration Assistant	All (minute-taker)

**Adjournments**

Reason	Start Time	Finish Time
RMP and 2017/2028 Works Programme presentations	2.43 pm	3.20 pm

**1.3 Apologies**

**Moved Parore/Gent**

That the apology of Mister Alan Nesbit be received.

**Carried**

**1.4 Confirmation of Agenda**

The Committee confirmed the Agenda.

**1.5 Conflict of Interest Declaration**

Nil.



## 2 Deputations and Presentations

Nil.

## 3 Minutes of Previous Meeting

### 3.1 Taharoa Domain Governance Committee Minutes 23 June 2017

Democratic Services Manager 1606.16/June

Moved Parore/Gent

*That the Minutes of the Taharoa Domain Governance Committee meeting on 23 June 2017, be confirmed as a true and correct record.*

Carried

## 4 Operational

### 4.1 Taharoa Domain Operations Update: July/August 2017

Parks and Community Manager 4702.24.02.02

Moved Gent/Parore

*That the Taharoa Domain Governance Committee:*

- 1 *Receives the Parks and Community Manager's report 'Taharoa Domain Operations Update: July/August 2017' dated 31 July 2017 and the information contained therein; and.*
- 2 *Believes it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with the provision of s79 of the Act determines that it does not require further information prior to making a decision on this matter; and*
- 3 *Supports calling for Expressions of Interest for locating beehives at the Domain; and*
- 4 *Supports permitting 123 boys and 30 adults, therefore exceeding the 100 person capacity, at Promenade Point campground Thursday 23 November 2017 to accommodate Kings College.*

Carried

#### 4.2 Northland Regional Council Kai Iwi Lakes Operations Report

Parks and Community Manager 4702.24.02.02

**Moved Parore/Gent**

*That the Taharoa Domain Governance Committee receives the Parks and Community Manager's report 'Northland Regional Council Kai Iwi Lakes Operations Report' dated 31 July 2017' and the information contained therein.*

**Carried**

**Meeting adjourned at 2.43 pm.**

**Meeting recommenced at 3.20 pm.**

#### 4.3 Kai Iwi lakes (Taharoa Domain) Promotion Work Plan 2017/2022

Parks and Community Manager 4702.24.02.02

**Moved Wade/Parore**

*That the Taharoa Domain Governance Committee receives the Park and Community Manager's report 'Kai Iwi lakes (Taharoa Domain) Promotion Work Plan 2017/2022' dated 28 July 2017 and the information contained therein as recommended in Option C of the above-mentioned report.*

**Carried**

#### 4.4 Dune Lakes Galaxias Monitoring Strategy – Endorsement

General Manager Community 4702.24.05

**Moved Wade/Parore**

*That the Taharoa Doman Governance Committee:*

- 1 *Receives the General Manager Community's report 'Dune Lakes Galaxias Monitoring Strategy – Endorsement' dated 2 August 2017; and*
- 2 *Believes it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with the provision of s79 of the Act determines that it does not require further information prior to making a decision on this matter; and*
- 3 *Endorses the Dune Lakes Galaxias Monitoring Strategy presented with this report for implementation.*

**Carried**

**4.5 Infrastructure Development Plan and 2017/2018 work programme**

**Parks and Community Manager 4702.24.02.02**

**Moved Gent/Parore**

*That the Taharoa Domain Governance Committee:*

- 1 *Receives the Parks and Community Manager's report 'Communication Plan feedback' dated 19 January 2017 and the information contained therein; and*
- 2 *Believes it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with the provision of s79 of the Act determines that it does not require further information prior to making a decision on this matter; and;*
- 3 *Approves the 10 year Infrastructure Development Plan and;*
- 4 *Recommends that Council funds the development of Kai Iwi Lakes in the draft 2018-2028 LTP at a slightly lower level of funding (\$180,000 per annum rather than \$198,000 per annum) and;*
- 5 *Confirms the 2017/2028 works programme as set out in the 10 year Infrastructure Development Plan as recommended in Option C of the above-mentioned report.*

**Carried**

**5 Closure**

**5.1 General Business**

Mister Ric Parore thanked Sue Hodge for her service at the Kaipara District Council.

The meeting closed at 3.57 pm.

**Confirmed** .....

**Chair** .....

**Kaipara District Council**

**Dargaville**



## **4 Operational**

### **4.1 Northland Regional Council Kai Iwi Lakes Operations Report**

**Parks and Community Manager                    4702.24.08**

#### **Recommended**

*That the Taharoa Domain Governance Committee receives the Parks and Community Manager's report 'Northland Regional Council Kai Iwi Lakes Operations Report' dated 24 November 2017 and the information contained therein.*

**File number:** 4702.24.08 **Approved for agenda**

**Report to:** Taharoa Domain Governance Committee

**Meeting date:** **11 December 2017**

**Subject:** **Northland Regional Council Kai Iwi Lakes Operations Report**

**Date of report:** 24 November 2017

**From:** Darlene Lang, Parks and Community Manager

**Report purpose**  **Decision**  **Information**

**Assessment of significance**  **Significant**  **Non-significant**

**Summary**

**Attachment 1** is the Northland Regional Council Kai Iwi Lakes Operations report from Biosecurity Projects Manager, Kane McElrea for the information of the Committee.

**Recommendation**

*That the Taharoa Domain Governance Committee receives the Parks and Community Manager's report 'Northland Regional Council Kai Iwi Lakes Operations Report' dated 24 November 2017' and the information contained therein.*

**Reason for the recommendation**

To ensure the Committee is informed about the implementation of the Kai Iwi Lakes (Taharoa Domain) Reserve Management Plan.

**Reason for the report**

To ensure the Committee is informed about the work being undertaken by Northland Regional Council (NRC) in respect to Kai Iwi Lakes (Taharoa Domain).

**Background**

The Kai Iwi Lakes (Taharoa Domain) Reserve Management Plan 2016 (RMP) includes a number of actions particularly under the Environment and aim that are delivered by the regional council.

The NRC's operations report is **Attachment 1**.

**Factors to consider****Community views**

The RMP was developed using a public process and reflects the views of the community and other stakeholders at the time of its development.

**Policy implications**

Nil. Operational decision-making has been consistent with the RMP.

**Financial implications**

NRC is responsible for funding the activities outlined in their report. The financial budgets are set within the Long Term Plan and respective Annual Plan.

***Legal/delegation implications***

There are no delegation issues; the Committee has delegated authority from Council to govern the Domain in terms of the RMP.

**Assessment of significance**

This matter does not trigger Council's Significance and Engagement Policy.

**Next step**

Council Officers will continue to implement the RMP.

**Attachment**

1. [NRC memo](#)

Date: 27/17/2017.

To: Taharoa Domain Governance Committee

From: Northland Regional Council,  
Kane McElrea, Biosecurity Projects Manager.

Subject: Northland Regional Council update to Taharoa Domain Governance Committee.

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## **Reason for report**

To provide an update to the Taharoa Domain Governance Committee on actions carried out by the Northland Regional Council (NRC) at the Taharoa Domain and surrounding catchment in relation to pest and weed management, land management and environmental monitoring.

## **Background**

Since December 2013, the NRC biosecurity staff have continued to support and manage pest management activities within the Taharoa Domain and surrounding adjacent private land. NRC land management staff are continuing to work with landowners in the catchment to improve lake and river water quality with farm water quality plans and wetland fencing. NRC Hydrology and Environmental monitoring staff carry out regular lake and ground water monitoring to better understand groundwater movements and lake water quality.

The following sections provide a brief update from each NRC department which is undertaking work relating to the Kai Iwi Lakes and surrounding catchment over the past six months.

## **Maritime**

Submissions for the new Navigation Safety Bylaws are still being received and are due to close August 2<sup>nd</sup>, 2017. For more information, visit the NRC [website](#). The [Navigation Safety Bylaw 2012](#) is currently in place by default.

## **Biosecurity**

The NRC's Biosecurity department has continued to assist with pest and weed control activities at the Taharoa Domain since December 2013. Control of invasive species such as wilding pines, acacia, possums, rodents, pest fish and feral pigs has been ongoing using specialist staff and local contractors.

Local contractors have been working alongside KDC staff to control large areas of acacia around Lake Kai Iwi and above the shag nesting swamp. Ongoing control of wilding pines and acacia is being carried out, with contractors working to undertake some maintenance work through areas previously controlled several years ago.

Staff are planning to carry out another annual possum and rodent control operation during August and September 2017. Using baitstations, contractors will deploy ratabate for the control of rats followed by Feratox for the control of possums.

Contractors have maintained a predator trapping network to control stoats, weasels, ferrets and feral cats at the Taharoa Domain and surrounding area. This network is checked and maintained monthly to reduce

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the impact of these predators on wildlife such as native waterfowl and nesting shore birds. 2016 / 2017 trapping results are shown in table below:

Jan 2016 – Dec 2016 trapping results:

	Stoat	Ferret	Weasel	Rat	Feral Cat	Hedgehog
2016	17	6	4	78	10	26
2017	1	0	3	42	6	1

### Biosecurity Advocacy - Check Clean Dry

Check, Clean, Dry (CCD) is a freshwater advocacy programme used to help educate and inform people about the risks of freshwater pests and how to reduce the risk of spreading these pests. Most of the programme advocacy is carried out during the summer season when the lakes receive a high volume of visitors. During the 2016-2017 season, 338 people were surveyed regarding freshwater pests and preventive action, from which an annual report was produced, see attached or be downloaded [here](#). There was an overall positive response from boat owners and other lake users with majority surveyed acknowledging the need to protect the lakes from introduce pest species.

In late June, advocates also attended the Kai Iwi Lakes Annual Trout Fishing Competition, held by Northland Fish & Game. The event saw upwards of fifty people attend the prize-giving, at which a CCD advocates took the opportunity to speak about freshwater pests. Fish & Game Northland were supportive to the advocates and welcomed their attendance, which was well-received by event attendees. All attendees received a pack containing information and collateral. CCD boat propeller flags and drink bottles were also provided to include in prize packs.



### Biodiversity

The Kai Iwi lakes Annual Weed Surveillance was completed in June, which was undertaken using a mix of commercial dive biosecurity operators and NRC snorkel team. Entry points and risk sites in all three lakes were checked looking for new incursions of hornwort and three oxygen weed species. No new incursions or weeds of concern were recorded. An introduced left handed pond snail was seen in Kai Iwi, which may be a new record, however these are common in many lakes and probably are not an issue. Adult dune lake galaxiids were seen at depth in Lake Waikare and there were also plenty of young common bullies in the three lakes. Gambusia were rare in the Lake Waikare margins but common in the Lake Kai Iwi margins. Lisa Forester also noted that the lakes were looking fuller than observed in a long time, and that visibility is good in all three lakes. Lake Kai Iwi in particular is in fantastic condition.

The Lake Waikare Reed Belt Monitoring Project to monitor changes post power boat close off is underway. Transects were established and measured around the margin of the lake in mid-June at ten randomly located site plus two supplementary sites. Parameters measured included:

- physical description of the site
- minimum and maximum depth
- height
- vegetation cover scores
- dieback and fertility for each plant species as well

In addition, where material was available, plant samples were collected which were sent away for nutrient analysis of nitrogen, phosphorus potassium, calcium and magnesium levels. Information from transects and nutrient analysis will be a baseline for future comparisons. It is hoped that the nutrient analysis will indicate differences in nutrient input around the lake, which may turn out to be a useful method for tracking nutrient hotspots in other lakes. Results are expected in coming weeks.

### **NRC State of Environment monitoring**

Routine lake water quality monitoring was carried out in early May. Nitrogen concentrations have continued to remain at low levels in Lake Taharoa, Lake Waikare and Lake Kai-iwi. Lakes monitoring is scheduled for the second week of August if favourable weather allows.

## 4.2 Taharoa Domain Operations Update: July to October 2017

Parks and Community Manager            4702.24.02.02

### **Recommended**

*That the Taharoa Domain Governance Committee:*

- 1     *Receives the Parks and Community Manager's report 'Taharoa Domain Operations Update: July to October 2017' dated 22 November 2017 and the information contained therein; and*
- 2     *Believes it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with the provision of s79 of the Act determines that it does not require further information prior to making a decision on this matter; and*
- 3     *Recommends to Kaipara District Council to lift the alcohol ban for the Lake Waikare Events Centre with proper controls put in place to ensure good behaviour standards are met; and*
- 4     *Allows the Manager's cabin to be hired out when it is not required as accommodation for the Camp Ground Manager.*

**File number:** 4702.24.02.02 **Approved for agenda**   
**Report to:** Taharoa Domain Governance Committee  
**Meeting date:** **11 December 2017**  
**Subject:** **Taharoa Domain Operations Update: July to October 2017**  
**Date of report:** 22 November 2017  
**From:** Darlene Lang, Parks and Community Manager  
**Report purpose**  **Decision**  **Information**  
**Assessment of significance**  **Significant**  **Non-significant**

### Summary

The Committee is charged with implementing the Kai Iwi Lakes (Taharoa Domain) Reserve Management Plan (RMP) 2016. The RMP has been developed to provide strategic guidance to the custodianship and enhancement of Kai Iwi Lakes (Taharoa Domain).

The following is a brief summary of activities, operations and maintenance work carried out over the months of July to October 2017 and future actions that deliver on the six Aims in the RMP.

**Aim 1: Collaboration** : Twenty volunteers have assisted with planting in this period.

**Aim 2: Cultural** : A draft brief for the Cultural Impact Assessment (CIA) is currently being reviewed by Te Roroa and Te Kuihi.

**Aim 3: Environment** : Efforts have begun towards implementation of the Fish Monitoring Programme (**Attachment 1**). The multi-agency Dune Lakes Galaxias Working Group met on Thursday 02 November 2017 and agreed on a number of actions each agency will take to begin implementation. These actions are recorded in the meeting notes (**Attachment 2**).

The Manager's cabin has been creating a lot of discussion. There have been approximately 20 people asking to hire it. During these discussions it seems that they would pay \$120 a night. This would be a good source of income in the off-season when the cabin is not needed to accommodate the Manager.

**Aim 4: Recreation** : There have been no events in this period. This is historically a quiet time for events.

There have been 10 groups that have been ready to book the events centre however have pulled out due to the alcohol ban. The alcohol ban restricts the events centre from being able to host weddings and other events. The rest of the Taharoa Domain does not have an alcohol ban, including the camp grounds, and it would be good if the events centre was in line with the rest of the Domain.

No incidents have been recorded for this period. However we are developing and implementing health and safety policies for the Domain.

**Aim 5: Economic Development:** The website has been updated and has gone live. The feedback has been very positive.

The new Facebook page has also been a hit with lots of people providing positive feedback.

The first newsletter was sent out in September. This newsletter is sent to everyone on the Camping Ground mailing list (approximately 5,000 people). This provides an update of what has been happening at the lakes.

Advertising has gone in to some local distributions such as the Northland Visitors Guide, The Lifestyler and the Whangarei Leader.

Total number of campers for the July to October 2017 period was 217.

The Taharoa Domain capital budget of \$100,000 is 50% spent. This has mostly been spent on the new walking and cycling tracks.

The Camp Ground Domain capital works budget of \$150,000 is 30% completed. This has been spent on the delivery and installation offices and accommodation buildings.

**Aim 6: Resourcing** : One of the objectives of this aim is to manage the finances in a business-like manner. In line with this objective Kai Iwi Lakes camp grounds was included in a Council-wide audit of cash handling carried out by PricewaterhouseCoopers (PwC). In terms of Kai Iwi camp grounds operations there are a number of actions including transition to a cashless regime. These actions have now been completed.

Spudnicks has been given a concession to supply food at Pine Beach from December 2017 until Easter weekend 2018.

The Night Managers have been appointed. The Casual contracts have been finalised for two ambassadors for Lake Waikare and two cleaners in preparation for the summer period.

### **Recommendation**

*That the Taharoa Domain Governance Committee:*

- 1 *Receives the Parks and Community Manager's report 'Taharoa Domain Operations Update: July to October 2017' dated 22 November 2017 and the information contained therein; and*
- 2 *Believes it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with the provision of s79 of the Act determines that it does not require further information prior to making a decision on this matter; and*
- 3 *Recommends to Council to lift the alcohol ban for the Lake Waikare Events Centre with proper controls put in place to ensure good behaviour standards are met; and*
- 4 *Allows the Manager's cabin to be hired out when it is not required as accommodation for the Camp Ground Manager.*

### **Reason for the recommendation**

To ensure the Committee is informed about relevant the implementation of the Kai Iwi Lakes (Taharoa Domain) RMP and information regarding the ongoing Domain and camp grounds operations.

### **Reason for the report**

To present the operational report for the Kai Iwi Lakes (Taharoa Domain) for the July to October 2017 period so the Committee can be well informed.

### **Background**

The Committee is charged with implementing the Kai Iwi Lakes (Taharoa Domain) Reserve Management Plan (RMP). The RMP has been developed to provide strategic guidance to the

custodianship and enhancement of Kai Iwi Lakes (Taharoa Domain).

The Kai Iwi Lakes are among the best known dune lakes in New Zealand and all three lakes, Taharoa, Waikare and Kai Iwi, are ranked as outstanding by NIWA. Growing populations, particularly Auckland, along with road improvements has led to increased visitors and associated pressures.

It is the intent of the RMP to enable the Lakes and its surrounds to be enjoyed by all visitors while simultaneously enhancing the area and reducing risks through knowledge and active management.

Finding a balance between public use and ensuring its continued health and well-being of the Lakes is a challenge for the Committee. Continued thought, collaboration, planning and funding is required around pest and weed control (the largest issues facing the long term health and natural character of the Domain) along with biosecurity (aquatic weed incursion and prevention), understanding the hydrology of the lakes, as well as recognising the cultural importance of the area.

### **Kai Iwi Lakes (Taharoa Domain) operations update**

The following is a brief summary of activities, operations and maintenance work carried out over the months of July to October 2017 that deliver on the six Aims in the RMP:

#### ***Aim 1: Collaboration***

*This aim is for Kai Iwi to be co-governed and to inspire others to share in its care.*

To measure “inspire others to share in its care” total volunteer hours are being recorded.

Twenty volunteers have assisted with planting in this period.

#### ***Aim 2: Cultural***

*This aim is to ensure the relationship of tangata whenua and other people, their history, culture and traditions are reflected in how the lakes are developed and cared for.*

To be able to achieve this aim a draft brief for the development of a Cultural Impact Assessment (CIA) has been finalised and sent to Te Roroa and Te Kuihi for their review. The purpose of the CIA is to understand the effects on Te Roroa and Te Kuihi and their cultural values of implementing the RMP. Once the CIA guidelines are finalised by Te Roroa and Te Kuihi a suitably qualified person will complete the assessment.

The RMP provides for the plan to be influenced by the outcome of the CIA.

#### ***Aim 3 Environment***

Efforts have begun towards implementation of the Fish Monitoring Programme (**Attachment 1**). The multi-agency Dune Lakes Galaxias Working Group met on Thursday 02 November 2017 and agreed on a number of actions each agency will take to begin implementation. These actions are recorded in the meeting notes (**Attachment 2**).

The Acacia and Pine removal is ongoing.

Animal and pest control is ongoing.

The toilet at B Block at Pine Beach has been extended to allow easier access.

The Manager's cabin has been creating a lot of discussion. There have been approximately 20 people

asking to hire it. During these discussions it seems that they would pay \$120 a night. This would be a good source of income in the off-season when the cabin is not needed for to accommodate the Manager.

At its 16 May 2017 meeting, NRC resolved to proceed with their public process for their draft Navigational Safety Bylaw for the Kai Iwi Lakes. A report updating KDC on the land-based Bylaw for Kai Iwi Lakes is included on this 11 December 2017 meeting agenda.

#### **Aim 4 Recreation**

*This aim is to have a diverse range of recreational activities available for visitors compatible with the cultural and ecological values of the lakes.*

There have been no events in this period. This is historically a quiet time for events.

There have been 10 groups that have been ready to book the Events Centre however have pulled out due to the alcohol ban. The alcohol ban restricts the Events Centre from being able to host weddings and other events. The rest of the Taharoa Domain does not have an alcohol ban and it would be good if the Events Centre was in line with the rest of the Domain.

No incidents have been recorded for this period. However we are developing and implementing health and safety policies for the Domain.

#### **Aim 5 Economic Development**

*This aim is to promote and develop the lakes as an educational, scientific and tourist destination*

The Website has been updated and has gone live. The feedback has been very positive.

The new Facebook page has also been a hit with lots of people providing positive feedback.

The first newsletter was sent out in September. This newsletter, an update of what has been happening at the Lakes, is sent to everyone on the Camp Ground mailing list (approximately 5,000 people).

Advertising has gone in to some local distributions such as the Northland Visitors Guide, The Lifestyler and the Whangarei Leader.

Below is a table that shows the number of campers from October 2016 to October 2017 and breaks the numbers down to domestic and international visitors.

<b>Month</b>	<b>Total visitors</b>	<b>Domestic visitors</b>	<b>International visitors</b>
October 2017	74	64	10
September 2017	63	55	8
August 2017	27	12	15
July 2017	53	32	21
June 2017	47	29	12
May 2017	129	114	15
April 2017	1816	1376	33
March 2017	939	904	35
February 2017	5500	5363	137
January 2017	16022	15899	123
December 2016	6531	6382	149

Month	Total visitors	Domestic visitors	International visitors
November 2016	888	609	279
October 2016	921	828	93

### **Capital works**

The Taharoa Domain capital budget of \$100,000 is 50%. This has been spent on the new tracks.

The Camp Ground Domain capital works budget of \$150,000 is 30% completed. This has been spent on the delivery and installation offices and accommodation buildings.

### **Aim 6 Resourcing**

*This aim is to ensure the lakes and its promotion encourage a spectrum of resources that support its stewardship.*

To ensure the finances are run in a business-like manner, a Council-wide audit of cash handling has been carried out by PricewaterhouseCoopers (PwC) and included Kai Iwi Lakes camp ground. The final report has been received by Council's Audit, Risk and Finance Committee. In terms of Kai Iwi camp ground operations the following actions have been implemented:

- A Point of Sale (POS) system to record sundry sales has been installed;
- The car cards system has been installed;
- Mobile phone/efpos payment facilities at Promenade Point are currently being implemented;
- Transition to a cashless regime for safety reasons has been completed; and
- Implement regular reconciliations of bookings/payments.

The Night Managers have been appointed. The Casual Contracts have been finalised for two ambassadors for Lake Waikare and two cleaners in preparation for the summer period.

### **Concessions:**

Spudnicks have been given a concession to supply food at Pine Beach from December 2017 until Easter weekend 2018.

### **Factors to consider**

#### **Community views**

The RMP was developed using a public process and reflects the views of the community and other stakeholders at the time of its development.

#### **Policy implications**

Nil. Operational decision-making has been consistent with the RMP.

#### **Financial implications**

It is the Parks and Community Manager's responsibility to ensure all operations are conducted within budget. The financial budgets are set within the Long Term Plan and respective Annual Plan. Operative budgets and performance are reported in a separate financial report.



***Legal/delegation implications***

There are no delegation issues; the Committee has delegated authority from Council to govern the Domain in terms of the RMP.

**Assessment of significance**

This matter does not trigger Council's Significance and Engagement Policy.

**Next step**

Council Officers will continue to implement the Reserve Management Plan.

**Attachments**

Fish Monitoring Programme

[Dune Lakes Galaxias Working Group Meeting Notes](#)

# Dune Lakes Galaxias

## Monitoring Strategy

### Abstract

*Northland's Kai Iwi Lakes are the only home of the Dune Lakes Galaxias (a threatened native fish). To ensure the survival of this species it is necessary to better understand its ecology and its interactions with other species. In particular, the Dune Lakes Galaxias (DLG) shares the lakes with two introduced fish species; trout and Gambusia (Gee & Franklin 2017). As trout are known to predate the DLG, it has been suggested that their removal will result in an increase in the numbers of DLG (Gee & Franklin 2017). However, Gambusia are also a threat. They are aggressive, are known to compete with DLG for food and habitat and are suspected to predate the DLG's young (Rowe 1998; Pingram 2005). It has been suggested that the threat of predation by trout is keeping the population of Gambusia in check through interactive segregation (Rowe, Champion & de Winton 1999). It is therefore, unknown if the exclusion of trout will be beneficial or detrimental to the DLG.*

*In addition, other questions have also been raised over to what extent environmental conditions and the extent of littoral vegetation may be affecting the abundance of DLG. DLG abundance has been found to vary considerably from year to year. The relative effects of environmental variables and interactions with other species will need to be understood before management actions to protect this species can confidently be taken.*

*This study seeks to explore the ecology of the DLG, its interactions with other species and its environment. It is hoped that the understandings gained through this study will advise management actions which will help conserve this species. The study design is based on the recommendations of a recent literature review by Gee and Franklin (2017), advice from a number of independent scientists, input from staff from the key agencies involved in managing the fish populations of the Lakes and has also been informed by the principals of mātauranga māori (indigenous Māori knowledge).*

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## 1. Introduction

The Dune Lakes Galaxias (*Galaxias sp.*) (here after referred to as the DLG) is currently recognised as a subspecies of dwarf inanga (*Galaxias gracilis*), however work is currently being undertaken to describe it as a separate species. The DLG is endemic to the three Kai Iwi Lakes (Taharoa, Waikare and Kai Iwi) on the west coast of Northland, New Zealand (Allen & Turner 1971).

Rainbow Trout (*Oncorhynchus mykiss*) were introduced to the Kai Iwi Lakes in 1968 by the then Acclimatization Society; now the Northland Fish and Game Council (Anon 1973; McEwan 2016). Regrettably, within a few years of trout being released, an unauthorised individual released Gambusia (*Gambusia affinis*) into the lakes as well (Gee & Franklin 2017). It is understood the individual intended the Gambusia to be a food source for the trout.

The introduction of these two species soon resulted in an observable decline in the numbers of DLG (Anon 1973; Gee & Franklin 2017). Since then DLG have become extinct in Lake Kai Iwi and there are concerns for the survival of the remaining populations in Lake Waikare and Lake Taharoa (Gee & Franklin 2017).

In response to this problem, Te Kūihi and Te Roroa (local iwi), Kaipara District Council, Northland Fish and Game Council, Northland Regional Council and the Department of Conservation are seeking to identify what actions can be taken to save this species.

One of the management solutions proposed was to cease releasing trout into the lakes. This is a comparatively simple solution because, as trout cannot breed in the lakes (they require flowing water), the population would naturally die out if the annual stocking of trout fingerlings were to cease (Kaipara District Council 2016; Gee & Franklin 2017). As trout are a predator of DLG it was hoped that removing the trout would result in an increase in the population of DLG (Kaipara District Council 2016).

However, the Gambusia are a complicating factor. They are known to compete with the DLG for habitat and food and are suspected to predate the DLG's young (Gee & Franklin 2017). Hence while some studies have hypothesised that removing trout will result in an increase in the DLG population through removal of a predator (e.g. Rowe and Chisnall 1995 and Allen and Turner 1971), others (e.g. Rowe 1998 and Rowe, Champion & de Winton 1999) have argued that the trout are also keeping the Gambusia population in check through interactive segregation (i.e. Gambusia do not use the full range of habitats for fear of predation by trout). This leads to the competing hypotheses that exclusion of trout could result in an increase in Gambusia and a consequent decline in the population of DLG (Rowe et al. 1999). To complicate matters further, it has been suggested that environmental factors, such as the extent of littoral vegetation, rainfall, lake levels, water temperature and the abundance of zooplankton may also be significant contributors to fluctuations in the populations of both DLG and Gambusia (Gee & Franklin 2017).

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Because of this uncertainty, a recent literature review by Gee and Franklin (2017) recommended that trout stocking not be ceased immediately but rather that a detailed study be designed and undertaken which recognises these competing hypotheses as well as the underlying environmental variability.

A working group comprising Te Kūihi, Te Roroa, Kaipara District Council, Northland Fish and Game Council, Northland Regional Council and the Department of Conservation has identified that the three priorities for this study are to:

1. Better understand the ecology and life history of the DLG including their abundance and where and when they spawn. The design of this study and especially the outcomes sought will be clearly linked to possible management actions;
2. Explore interactions between DLG, trout and Gambusia. E.g. do Gambusia exclude DLG from their preferred habitat, compete with them for prey, predate their young or force the DLG to spend more time in parts of the lake inhabited by trout? Do trout have an interactive segregation effect on Gambusia? How great is trout predation pressure on DLG?
3. Identify management options which will benefit the DLG. E.g. this could include control of Gambusia or altering the release patterns for trout.

This study will therefore seek to better understand the ecology of the DLG, its interactions with other species, the effect environmental variables have on its survival and actions which can be taken to protect it.

The findings of this study are needed by the managers of these lakes (Kaipara District Council and Local Iwi) and the fish populations therein (Northland Fish and Game Council and the Department of Conservation) to guide management decisions (Kaipara District Council 2016).

Due to the complexity of this matter, this strategy shall be a working document and will be updated and further refined as new information comes to light. For this reason, the strategy has been kept reasonably high level at this stage rather than drilling down into detail over methods and deliverables. The Working Group shall continue to refine the individual actions of the study as it progresses.

## **2. Research Design and Methods**

The research design is desired to draw on both mātauranga māori (indigenous Māori knowledge and epistemologies) and western science approaches to generating knowledge. The execution of the study shall therefore be informed by a soon to be commissioned Cultural Report.

This research will support cultural values by incorporating traditional Maori collection methods to complement more widely used scientific monitoring tools. This study will use whakaweku (bracken fern bundles) which is a component of Tau Koura, a traditional harvesting method used by tangata whenua of Te Arawa and Ngati Tuwharetoa. The Tau Koura method has been successfully used as a

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monitoring tool for koura (freshwater crayfish, *Paranephrops planifrons*) in the Te Arawa Lakes (Kusabs and Quinn, 2009), however recent studies have shown that this can be an effective monitoring tool for freshwater fish species in shallow lake fringes and running stream habitats (Kusabs, in press). We also intend to adapt this method and use whakaweku as an artificial habitat for DLG to see if they use this habitat at any particular time in their lifecycle, or whether they utilise this as a spawning substrate. This method produced initial positive results as an effective spawning habitat for inanga species in a trial conducted in the lower Waipoua River (Taylor pers. com., 2017). By incorporating this method into the design we can actively introduce a Matauranga Maori element into this proposal.

This study has been informed by recommendations from Gee and Franklin (2017), the findings of other previous studies and advice from a number of independent scientists. The study will consist of:

### **2.1 Review reliable methods for estimating DLG and Gambusia abundance at various life cycle stages**

*Why?* - Without this understanding we cannot measure the effects of any treatment.

*Research questions:*

- What is an effective method for estimating DLG abundance?
- What is the population size and trend for all species in the Lakes which do and do not undergo manipulations?

*Problems:*

- For each method of estimating abundance it needs to be asked; is it destructive or non-destructive, especially to DLG?
- Even given a reliable method of relative abundance estimate, how will inter-annual variability be accounted for in a scenario where a manipulation is involved (e.g. destocking trout, trout stocking numbers progressively lowered, *Gambusia* control). Natural inter-annual variability may mask the year-to-year effects of a manipulation.
- It could also be that what is currently perceived as “inter-annual variability” is actually a function of the difficulty of measuring the abundance of a rare species with a correspondingly patchy distribution. If this is the case, a more reliable monitoring method may better reveal the true extent of any actual inter-annual variability. Eleanor Gee notes, “In the datasets I looked at (primarily Pingram/DoC, but also Rowe 1999), the variability in catch/observation numbers throughout the year and from year to year made it hard to have confidence in estimation of numbers.” (Eleanor Gee, pers. comm.).

*Research approaches:*

- Gee minnow trap transects give a catch per unit effort (CPUE) for *Gambusia*, giving a standardised estimate of abundance.

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- DLG have been assessed using plankton nets for larvae, and fyke nets for later stages. Each of these is destructive (some or all of the fish caught are killed). Visual assessment by snorkel survey or on-shore observation has also been used in the littoral zone and is non-destructive.
- Camera transects could be set up reasonably affordably using a Go-Pro Camera.
- A mark-recapture approach might give a reliable estimate.
- A new monitoring method based on traditional Maori fishing practices is being developed. It is understood this method is non-destructive and, if successful, could be applied to the DLG. This method would be very affordable and could be useful as a preliminary study.
- Inter-annual variability might be monitored by doing a manipulation in only one lake (Waikare) and observing the population modes in Taharoa to account for effects of environmental drivers. The two lakes are not comparable units, but environmental effects should be seen in pattern if not in magnitude.
- Environmental DNA could be used as a monitoring method, however this is an expensive method.
- Acoustic dopplers (fish finders) could be used to monitor the abundance of DLG providing they can distinguish between species.
- As we know DLG numbers are potentially both difficult to quantify and temporally variable across years, any response to a manipulation would need to allow several years to determine if the population will rebound or not.

## 2.2 Identify DLG spawning sites and timing

*Why?* - The location and timing of DLG spawning using straw bales or bundles of bracken fern as an artificial substrate is prompted by a hypothesis that lower water levels in the lakes result in less reed bed being available for spawning in the littoral margin. Whether that is relevant or not, understanding the timing of spawning in each lake will provide information into the population model (see 2.3 below) and it will inform manipulation such as the timing of release of trout.

In terms of the driving hypothesis, NRC long term lake level data shows an increase in water level trend for Lake Waikare and a decrease for Lake Taharoa. Lake Taharoa has had a 30+ year relatively stable period of water level with a drop apparent as of mid-2013. This would mean that the reed beds had time to recolonise from initial water level drops since 1980. Waikare would not be subject to the hypothesis of lost reed belt.

### *Research questions:*

- Is lake level responsible for loss of reed belt habitat for DLG spawning?
- Do DLG spawn on the reed belt?
- Do DLG spawn on other plant species at a lower zone in the lake?
- What is the period of DLG spawning in each lake and when is peak spawning?

### *Problems:*

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- The cause of recent water level decline in Taharoa needs to be determined.
- Spawning success was not the problem in the Rowe (1997) study, recruitment to adult phase was.

*Research approaches:*

- Use straw-bales or bundles of bracken fern to promote spawning in a known area to determine timing of spawning.
- At determined time of spawning, survey reed belts and submerged plant zones for sign of eggs.
- Examine historic photos for reed belt extent and position.
- Assess the effect of the canal between Lake Taharoa and Lake Kai Iwi for its effect on water level in Lake Taharoa.

### **2.3 Creating a population model for each species**

*Why?* – The timing of life cycle stages (e.g. what time of year the fish spawn and at what age they reach certain size class) and their distribution is critical towards understanding the usefulness of interventions. As information becomes available from other studies in this Strategy, this can be added to the model (e.g. DLG spawning timing, predation removal rates by trout, etc). Models are flexible and can be altered as new information becomes available. This population model shall therefore be compiled over time as various aspects of the necessary data become available through other aspects of this study.

*Research questions:*

- What is the timing of life cycle stages of each species (DLG, trout and Gambusia)?
- What is the spatial distribution leading to interactions between each species?
- How does spawning differ across the Lakes?
- What are the preferred prey of each species and are they exclusive at various life cycle stages of the predator?
- What is the role of phytoplankton and zooplankton in driving the food web?
- How does trout condition/growth-rate back-calculate in terms of prey consumed?

*Problems:*

- Models are only as good as the input data. Acquiring the input data may be expensive. It is therefore intended that the data for the model shall be compiled as it comes to light through implementing other aspects of this study.

*Research approaches:*

- Employ a modeller to build the model from simple to complex.
- Reprioritise other research to the needs of the model.

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- Baker and Rowe have already completed a study looking at competition for food between riverine inanga and Gambusia. The results of this study can be reviewed and potentially fed into the model.

#### **2.4 Observe interactive segregation between Gambusia and trout**

*Why?* – If the presence of trout in the lakes is forcing an interactive segregation approach on the Gambusia, then removing the trout could cause a boom in the Gambusia population. This in turn could impact negatively on the DLG. Mesocosm studies of interactive segregation were proposed by Dave Rowe. Nick Ling notes that mesocosm studies are confounded by lack of habitat complexity and small spatial scale that greatly exacerbates interactions. The design of the study should therefore consider such aspects as scale and habitat availability.

##### *Research questions:*

- Does the presence of trout cause Gambusia to seek refuge in littoral vegetation?
- If so, does being crowded into the littoral zone cause Gambusia to predate their own young?

##### *Problems:*

- Mesocosm studies are costly and can be artificial compared to interactions in the wild.

##### *Research approaches:*

- Interactive segregation would be tested by Gambusia transects of depth and distance from shore. Ideally the test should be undertaken in the same lake to exclude other variables. This could be done by introducing trout into a lake which has an established Gambusia population and observing Gambusia behaviour before and after the trout are introduced. Lake Kai Iwi or Shag Lake could be possible study sites. Furthermore, Fish and Game also have a lake/pond which could be used.
- Conversely, Lake Waikare could be used with observations made in the current trout presence compared with observations made after de-stocking the lake of trout. This would essentially be repeating the late 1990s Rowe experiment. If Gambusia move deeper and further out in the absence of trout, there is a case for this hypothesis.

#### **2.5 Seasonal study of trout diet**

*Why?* – Predation by trout on DLG and common bully is a known impact. Initial declines of DLG were noted in the late 1960s when trout were first released, but Gambusia had yet to fully establish. Predation by trout on Gambusia has not been documented. If a population model is to be developed, we need to know the total removal of each species/trout/day/seasonal month. Since trout change prey preference by season and age; an understanding of their energy budget by species will inform a population model. Better understanding at what times of the year and at what size trout show a preference for certain prey species may help inform management decisions such as at what time of the year or at what size trout should be released.

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*Research questions:*

- What prey do different size/age classes of trout prefer and is this exclusive?
- What prey species do trout show a preference for at different times of the year?
- What life cycle stages of DLG are predated on by trout, when and what level?
- Where in the lake is this predation occurring?
- Do trout eat Gambusia, when and where and what size/age class of trout prey on them? Is this sufficient predation pressure to reduce Gambusia populations?

*Problems:*

- Visual gut analysis is hampered by some prey material being digested or fractured. This makes identification of prey difficult and it makes a count by prey species impossible.
- Trout caught in different depths, different offshore distances and at different times of day may have different prey composition in gut content. Trout of different age/size classes have different prey preference.
- Relying on angler-caught trout for this study gives no statistical confidence and is random as to catch depth/offshore distance.
- Assumptions of “some” predation should not be taken as an impact on population levels of Gambusia, or even DLG for that matter. We need to quantify removal rates to see true impact.

*Research approaches:*

- As the diet and seasonal feeding behaviour of trout is well studied, a general understanding of the seasonal variation of trout diets in the Kai Iwi Lakes could likely be gained from a literature review. This review could also provide information on how trout diet varies across size classes. Such a review would likely be reasonably in-expensive and could be followed by field studies if needed, possibly using the following approaches:
- Use otoliths as a species ID and number estimate.
- Use genetic identification for all species consumed. This requires reference genome of all likely prey species (including insects and fish).
- Use fatty acid signatures to identify all species consumed. Requires reference samples of all species.
- Conduct monthly surveys for one year by catching a statistically meaningful number of trout from standardised transects of depth and offshore distance and time of day and at several size classes of trout, based on literature of prey preference at age/size.
- Concentrate study of Gambusia predation by trout in summer and autumn due to peak Gambusia numbers.
- Use isotope analyses to look at food web interactions.
- Fish and Game should be able to provide all historic trout release and catch return (condition, size, age, weight) data to assess stocking rates vs condition index.

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- Review literature for information on trout diet at size/age. Is *Gambusia* ever recorded? Does piscivorism cease completely after trout are yearlings?

## 2.6 *Gambusia* control

*Why?* – *Gambusia* are hypothesised to affect DLG. This may be occurring by resource competition for food, from aggression-related displacement from key habitat (vegetated littoral zone), from attacks leading to death (fin pecking) and from eating of DLG eggs.

*Gambusia* are prolific breeders, with a single female at the start of the breeding season (November) giving rise to nearly ¼ million more fish by the end of the season (March). Therefore, any control attempts are best made prior to the breeding season and at the end of the season, in order to reduce numbers of breeding females from the population. This should reduce pressure on DLG.

### *Research questions:*

- Do *Gambusia* solely inhabit the vegetated littoral zone in Waikare and Taharoa?
- As *Gambusia* are both light and heat attracted, can modifications to Gee minnow traps including these features increase capture rate?
- Are DLG less apt to enter a minnow trap?

### *Problems:*

- *Gambusia* may still reproduce in numbers sufficient to have an impact.
- *Gambusia* distribute to 9 m depths in Kai Iwi requiring traps set over a wider area.
- Common bully may enter traps.
- DLG may enter traps if trialled in Taharoa and Waikare (although Pingram found they did not).

### *Research approaches:*

- Trialling control methods are best done in Kai Iwi as there are no DLG.
- Use heat and light as an attractant.
- Trial flow as an attractant as it may be possible to “vacuum up” large numbers of fish if it does prove successful.
- Trail brown bread baits.
- Trial daytime only trapping in lakes with DLG as it is understood adult DLG are absent from the shallows during the day.
- Combine any de-stocking of trout in Waikare with *Gambusia* control to minimise pressures on DLG.

## 2.7 Supporting studies

Depending on the availability of funding and the potential for involving PHD and Masters students, there are also a number of supporting studies which could be incorporated into the overall study design. These could include exploring the potential for translocating DLG to establish a new

**4702.24.05/FS**

population in a lake which has no *Gambusia* or trout. This will provide an additional refuge for the species should the populations in the Kai Iwi Lakes fail.

It would also be advantageous to monitor changes in the populations of other species, particularly the eels (*Anguilla dieffenbachii* and *Anguilla australis*) and koura (*Paranephrops*) (Gee & Franklin 2017). This could be undertaken annually using gill or fyke netting for the eels and bundles of bracken fern (after the method of Kusabs & Quinn 2009) for the koura to record catch per unit effort (Gee & Franklin 2017). This monitoring could be undertaken by local iwi who have an interest in harvesting these species and a desire to exercise their mana whenua status over the lakes.

### 3. Timetable

By December 2017 it is hoped to have completed working with the various parties involved to agree on:

- A monitoring programme for 2018 – including the scope, who will undertake it and how it will be funded;
- A final design for the study;

### 4. Funding

This research will be undertaken collaboratively by Te Kūihi and Te Roroa (local iwi), Kaipara District Council, Northland Fish and Game Council, Northland Regional Council and the Department of Conservation with each contributing as they are able and in accordance with their strengths and statutory obligations. Contributions may be in cash or in kind. In addition, external funding shall also be sought as will collaborative arrangements with research institutes and education providers such as North Tech.

### 5. Presentation

Study results are to be made available to all parties as they become available.

A written annual report on monitoring results and the progress of the study is to be prepared, circulated to all parties and made available to the public. This could be combined with the regular lake reporting currently undertaken by the Northland Regional Council.

The results of the study are to be presented within five years as a written report outlining the findings and recommendations for future monitoring, management actions and study.

### 6. References

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## Meeting Notes

### Kai Iwi Lakes Dune Lake Galaxias Working Group

**Date** : **Thursday 2 November 2017**  
**Time** : 1.11pm start, concluded at 2.55pm  
**Venue** : Whangaroa Room, Northland Regional Council Office, Whangarei

#### Attendance

Will Trusewich	Northland Regional Council
Tom Drinan	Department of Conservation
Andrew Knock	Department of Conservation
Rudi Hoetjes	Northland Fish and Game Council
Ric Parore	Te Kuihi
Taoho Patuawa	Te Roroa
Mark Schreurs	Kaipara District Council
Tanya Cook	NorthTech
Carol Nicholson	Northland Regional Council

#### Karakia

Mark welcomed everyone and invited Taoho to give a karakia. Taoho opened the meeting at 1.11pm.

#### Actioning Research

The Dune Lakes Galaxias Monitoring Strategy (the Strategy) identified seven priority areas of study. The intention of this meeting was to discuss how these could best be actioned, which agency would take the lead on each, and how these could be resourced. It was noted that these areas of research had been reviewed by a number of scientists and there was a general consensus that they were appropriate given the knowledge gaps surrounding this species.

The **first** area of study listed under the Strategy is to **review reliable methods for estimating Dune Lakes Galaxias and Gambusia abundance at various life cycle stages**. Andrew gave an overview of the Dune Lakes Galaxias (DLG) monitoring undertaken by the Department of Conservation (DOC). This is done quarterly using the spotlighting technique. This method is non-invasive and should be continued due to its low cost and the many years of data. However this method has struggled to show any trends and is not quantitative enough. Tom suggested fyke netting

would give better quantitative results but could potentially prove harmful to the fish. Underwater drone transects were also discussed however the method was considered to still be experimental, as was underwater video. The use of environmental DNA was considered worth exploring. Tom will explore the feasibility of this. It was suggested that monitoring efforts should be intensified around the DLG's suspected spawning time in the hopes of recording a spawning event.

**Actions:**

- The Department of Conservation will continue to take the lead on monitoring the abundance of this threatened species;
- Quarterly spotlight counts will continue and will also be intensified around the DLG's suspected spawning time;
- Fyke netting will be trialled with some modifications to make it safer for the fish. Fyke netting is intended to provide a means of calibrating the spotlighting method as well as providing quantitative data;
- Tom will explore the feasibility of using environmental DNA as a monitoring technique.

The **second** area of study listed under the Strategy is to **identify DLG spawning sites and timing**. It was suggested that otoliths (a bony structure in the ear/gill of the fish) could be used to identify the age of the fish and therefore the timing of spawning. This method involves examining the otolith under a microscope. North Tech could do this with training support from NIWA. Observing the development of the fish's gonads was also suggested.

Another suggestion was to keep some DLG in an aquarium and observe them to see when/if they spawn. This has not been tried previously and there is the risk that the fish may behave differently in an aquarium than when exposed to the environmental influences in the lakes.

Another method would be to place bundles of bracken fern in the lakes at different depths to serve as an artificial spawning substrate. This might also have potential as a monitoring technique (it was noted however that this will also become an area which will attract koura which will/may in turn prey on any eggs that the DLG may lay there). Te Roroa could undertake this but would require some funding for labour. Toaho will put together a plan regarding the funding needed. DOC and Kaipara District Council (KDC) could potentially contribute some staff time as well. Fish and Game offered to pay for some materials and potentially contribute use of a boat if needed. This project could begin with a small trial and then be scaled up if found to be successful.

**Actions:**

- DOC will be lead agency as this forms an extension of their existing monitoring;

- DOC will work with North Tech to investigate using otoliths to determine the timing of spawning, including if Enviro Link funding might be available;
- DOC will intensify their spotlighting around the DLG's suspected spawning time.
- Te Roroa will plan and execute using bundles of bracken fern as an artificial spawning substrate, possibly in collaboration with other agencies. This study is to be undertaken around April, May, and June 2018.

The **third** area of study listed under the Strategy is to **create a population model for each species**. It was considered that this action cannot be completed until more information is made available by actioning the other research streams. It was decided to construct the model now and further develop it as more/better input data becomes available. It was noted that this model could be useful for advising management actions.

**Actions:**

- Northland Regional Council (NRC) will take the lead on this;
- Will Trusewich will begin constructing the model, improving it as more data becomes available.

The **fourth** area of study listed under the Strategy is to **observe interactive segregation between Gambusia and trout**. It was noted that North Tech is already working on this. Tanya gave an overview of the work her students are doing. They are looking at the distribution of Gambusia in the lakes, including distribution by depth. They are not currently making an additional observations of behaviour; such as evidence of harassing other fish.

**Actions:**

- North Tech will continue to take the lead on this in collaboration with NRC and DOC;
- North Tech's existing study will be continued with advice from NRC and DOC.

The **fifth** area of study listed under the Strategy is to undertake a **seasonal study of trout diet**. At present most data is collected by anglers. However, as little angling is done over the summer months, there is a gap in the data. The annual fishing competition provides a lot of data, however its timing is not the best for providing the information needed. Netting trout every three months and checking their stomach contents would give the best data. Tanya suggested North Tech may be able to assist with some of this work.

**Actions:**

- Fish and Game will deliver this study;

- Data will be sourced through three monthly netting of trout, and information from anglers.

The **sixth** area of study listed under the Strategy is to experiment with **Gambusia control**. It was suggested that trials begin in Lake Kai Iwi as there is no risk of catching DLG as bycatch. Potentially begin with a small trail and then scale up once a successful method is identified. Some form of gee-minnow trap, possibly bated with heat, light or current was suggested as being the best method to begin with. DOC offered to provide the labour however would require the provision of suitable traps. There was some discussion over who would fund construction of the traps. It was agreed that Te Roroa and DOC would challenge schools to develop an appropriate trap. *After the meeting, KDC were able to confirm they can fund construction of a few traps to be trialled in the lakes.*

#### **Actions:**

- Mark will work with Will to develop a design for the trap;
- KDC will have the traps constructed;
- KDC will work with DOC and the other agencies to implement the trial.

Lastly, the **seventh** area of study listed in the Strategy identified the potential to undertake a number of supporting studies to gather information on other species and the physical environment of the lakes. It was noted that NRC already do quarterly water quality monitoring. Rudi mentioned Fish and Game would be willing to do monthly temperature and dissolved oxygen monitoring if they are loaned the equipment. NRC will see what equipment they can provide.

There was some discussion over the tuna (eel) population and issues of fish passage. Fish and Game offered to combine tuna surveys with their three monthly trout surveys. DOC offered to lend Fish and Game some of their fyke nets. Te Roroa suggested they could use their bracken fern bundles to survey koura (crayfish) as well.

#### **Actions:**

- NRC monitoring of water quality and environmental variables to continue, possibly supported by additional monitoring by Fish and Game;
- Fish and Game will undertake three monthly tuna surveys using fyke nets;
- Te Roroa to survey koura numbers using the traditional method of Tau Koura.

#### **Data sharing**

The findings of the various research streams will be shared between all parties as they become available. KDC will collate the information into an annual report providing an update on the actions taken. KDC will also prepare regular reports to the Taharoa Domain Governance Committee updating them on progress. The next meeting of the Taharoa Domain Governance Committee is on



Monday 11 December 2017, and the agenda will be sent out one week before the meeting. The report to the Committee will be shared to all member organisations at the same time as the agenda is sent out. The information in this report can then be used by member organisations for their own reporting.

### **Next meeting**

The Kai Iwi Lakes Dune Lake Galaxias Working Group will meet again in February 2018, after Waitangi Day weekend. This will give the member organisations time to take action on the ground. The next meeting will be an opportunity to report back, refocus actions and collaborate.

*Mark invited Taoho to close the meeting at 2:55pm with a karakia.*

#### 4.3 Financial report for four month period ending 31 October 2017

Financial Services Manager                      4702.24.02.01

##### **Recommended**

*That the Taharoa Domain Governance Committee receives the Financial Services Manager's report 'Financial Report: Four month period ending 31 October 2017' and the information therein.*

## Taharoa Domain Governance Committee

### Financial Report four month period ending 31 October 2017

This report covers:

- Kai Iwi lakes (Taharoa Domain) including Pine Beach and Promenade Point camp grounds

#### Overview

Key Indicators for year to October 2017 are set out in the tables below (all in \$000's).

	<b>Actual Oct 2017</b>	<b>Whole Year Budget</b>
Total Revenue	83	303
Total Operating Costs	153	450
Capital Expenditure	176	300

**Attachment**    1        Financial Summary Report

#### Commentary

Camp fees and charges have started strongly with bookings coming in for the summer holidays. A review of the budget during the Forecast One process has seen the forecast revenue lifted to \$400,000 to match last year's revenue.

#### Costs

Costs are generally tracking well at this stage of the year. Ground maintenance is generally performed away from the summer peak and with almost half the budget spent early in the year this is expected.

Staff salaries are lower as casuals will be used over the summer with higher costs anticipated then.

#### Capital Expenditure

There are three projects in the financial year:

- The first is improving the general Kai Iwi facilities. 58% of the budget has been spent to October in readiness for the summer season;
- The replacement tractor has been purchased; and
- Taharoa Domain development is 43% complete at the end of October.

## Attachment 1

Taharoa Domain				
Financial Summary Report for the 4 month period ended 31 October 2017				
Income				
ACTUAL		BUDGET		ACTUAL
12 months to		12 months to	4 months to	
30.06.2017		30.06.2018	31.10.2017	
\$ Revenue		\$		\$
406,667	Camping fees	303,004		82,742
35,000	Other Income	-		-
441,667	<b>TOTAL</b>	303,004		82,742
ACTUAL		BUDGET		ACTUAL
12 months to	Description	12 months to	4 months to	
30.06.2017		30.06.2018	31.10.2017	
\$		\$		\$
12,618	Transport costs	17,856		1,288
1,297	Resource consents	840		371
157,237	Grounds maintenance	121,920		53,078
41,787	Building maintenance	43,488		6,755
54,402	Professional service	47,412		3,646
0	Advertising and promotion	1,584		211
150,851	Staff salaries and employee costs	167,196		42,248
2,085	Insurance	5,880		1,048
10,924	Power and water costs	12,388		5,425
24,235	Refuse disposal	30,000		10,850
42,380	Sundry	25,692		14,760
497,816	<b>TOTAL</b>	474,256		139,681
Capital Expenditure				
ACTUAL		BUDGET		ACTUAL
Total		Total	Total	
12 months to	Description	12 months to	4 months to	
30.06.2017		30.06.2018	31.10.2017	
\$		\$		\$
500,164				
	10087 Kai Iwi facilities	150,000		87,138
	10707 Tractor	50,000		45,480
	10706 Taharoa Domain - implement RMP	100,000		43,457

## **5 Closure**

**Kaipara District Council  
Dargaville**