

## SUMMARY DOCUMENT FOR COMBINED APPLICATIONS FOR NEW GROUNDWATER TAKES FROM THE AUPOURI AQUIFER SUBZONES: HOUHORA, MOTUTANGI AND WAIHARARA

In the period between mid-2016 to June 2017, the Northland Regional Council received 17 applications for new groundwater takes from the deep shell bed aquifer to service proposed avocado orchards in the Houhora, Motutangi and Waiharara areas of the Aupōuri Peninsula.

Table 1 below provides a summary of each applicant's requested volume of water and the area to be irrigated. Figure 1 (**attached**) shows the locations of each take.

**TABLE 1: Summary of Applications**

**Note:** All applications except one are for new water takes; Stanisich is an increase of an existing take.

Application Number	Applicant Name	Area to be planted (ha)	Maximum volumes applied for		
			L/s	Daily (m <sup>3</sup> )	Annual (m <sup>3</sup> )
APP.038610.01.01	Mapua Avocados Limited C/- Murray Forlong	160	116	5,000	745,000
APP.038471.01.01	Honeytree Farms Limited C/- Tony Hayward	110	81	3,500	521,500
APP.038410.01.01	Georgina Tui & Mate Nickolas Covich	70	35	1,500	223,500
APP.038420.01.01	Largus Orchard Limited Partnership C/- Murray Forlong	60	30	1,300	193,700
APP.038513.01.01	Te Rūnanga o Ngāi Takoto C/- Rangitane Marsden	60	30	1,300	193,700
APP.039332.01.01	Candy Corn Ltd C/- Logan King	20	12	537	80,000
APP.038454.01.01	Elbury Holdings Limited C/- Kevin & Fiona King	30	18	763	113,700
APP.038328.01.01	Bernard Kim & Sheryl Dianne Shine	10	6	268	40,000
APP.027391.01.02	Ivan Anthony Stanisich	17	10	430	64,070
APP.039244.01.01	Kevin & Dani Thomas	16	9	400	59,600
APP.038589.01.01	Neil & Alma Violet Thompson and Steven & Josephine Suzanne Thompson	9	7	320	47,680
APP.038650.01.01	Tony and Diane Hewitt	10	6	270	40,230
APP.038591.01.01	Cypress Hills Ltd C/- Alan Anderson & Carolyn Dawn Smith	9	7	280	41,720
APP.039345.01.01	Ongare Trust C/- Ian McLarnon & Jason McLarnon	6	5	200	29,800
APP.38732.01.01	Kathy Valadares	8	4	150	22,350
APP.038380.01.01	Daimen & Katherine Holloway	4	2	100	14,900
APP.039381.01.01	Johno and Carol Brien (Lamb Road)	4	2	100	14,900
<b>Total</b>		<b>603</b>	<b>380</b>	<b>16,418</b>	<b>2,446,350</b>

The council placed all the applications on hold under section 92 of the Resource Management Act until further information from a suitably qualified groundwater expert was provided on the potential adverse effects of the takes on both the shallow and deep aquifers, and surface water features, including wetlands. This further information request also included an assessment of the cumulative adverse effects from these applications and existing groundwater takes.

The 17 applicants combined to form the Motutangi-Waiharara Water User Group (MWWUG), to obtain the requested information from Jon Williamson of Williamson Water Advisory (WWA).

The assessment of effects report from WWA was provided to the council in May 2017. The council then contracted an independent groundwater expert, Brydon Hughes, Land Water People (LWP), to undertake a peer review of the WWA report to confirm that it had adequately addressed the potential adverse effects of the combined applications.

Based on the WWA report and the peer review by LWP, the council considers that the adverse effects of the new groundwater takes on the environment, including saline intrusion and surface water features such as wetlands, will be no more than minor.

However, the modelled cumulative drawdown effect in both the shallow and deep aquifers from the additional water taken by the MWWUG may potentially affect the ability of people within the Houhora, Motutangi and Waiharara sub catchments to take water from an existing bore or surface water body. The scale of this effect will be dependent on how the bore has been constructed and the nature of the surface water body. The council has based this potential adverse effect on the predicted worst-case scenario for drawdown shown in the WWA report. The relevant maps (Figures 30 and 49) from the WWA report showing the extent of this drawdown are **attached** for your information.

The following technical documents from the respective groundwater experts that have been provided as part of the MWWUG application and have been used by the council are available online for your information on the Northland Regional Council's website page <https://www.nrc.govt.nz/Consents/Notified-resource-consents/>:

- (1) *Document 1 – Motutangi\_Waiharara WUG AEE 30 August 2017* – The Application and Assessment of Environmental Effects (AEE) for the combined applications, which details the applicants, locations, volumes, and summarises the findings of the in-depth modelling report;
- (2) *Document 2 – Motutangi\_Waiharara Groundwater Modelling Report 30 August 2017* – The technical modelling report for the AEE, in-depth technical report on the effects of the proposed and existing groundwater takes on the Aupōuri aquifer and surface water features;
- (3) *Document 3 – Motutangi-Groundwater WUG Modelling Report 30 August 2017 – Figures*
- (4) *Document 4 – LWP Peer Review Report for MWWUG\_Aupouri GW applications\_17 October 2017* – Final Peer Review Report, 19 September 2017 – summarises the applicant's information and provides an expert review on the applicant's groundwater consultant's information.

A copy of these documents is also available to view at:

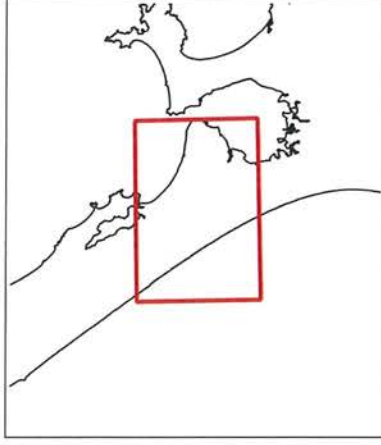
Northland Regional Council  
Kaitāia Area Office  
192 Commerce Street  
Kaitāia

Office Hours 8.30 a.m. – 4.00 p.m.

Map Title:  
**Project locality map**

Project:  
**Motutangi - Waiharara Groundwater Model**

Client:  
**Motutangi - Waiharara Water Use Group**

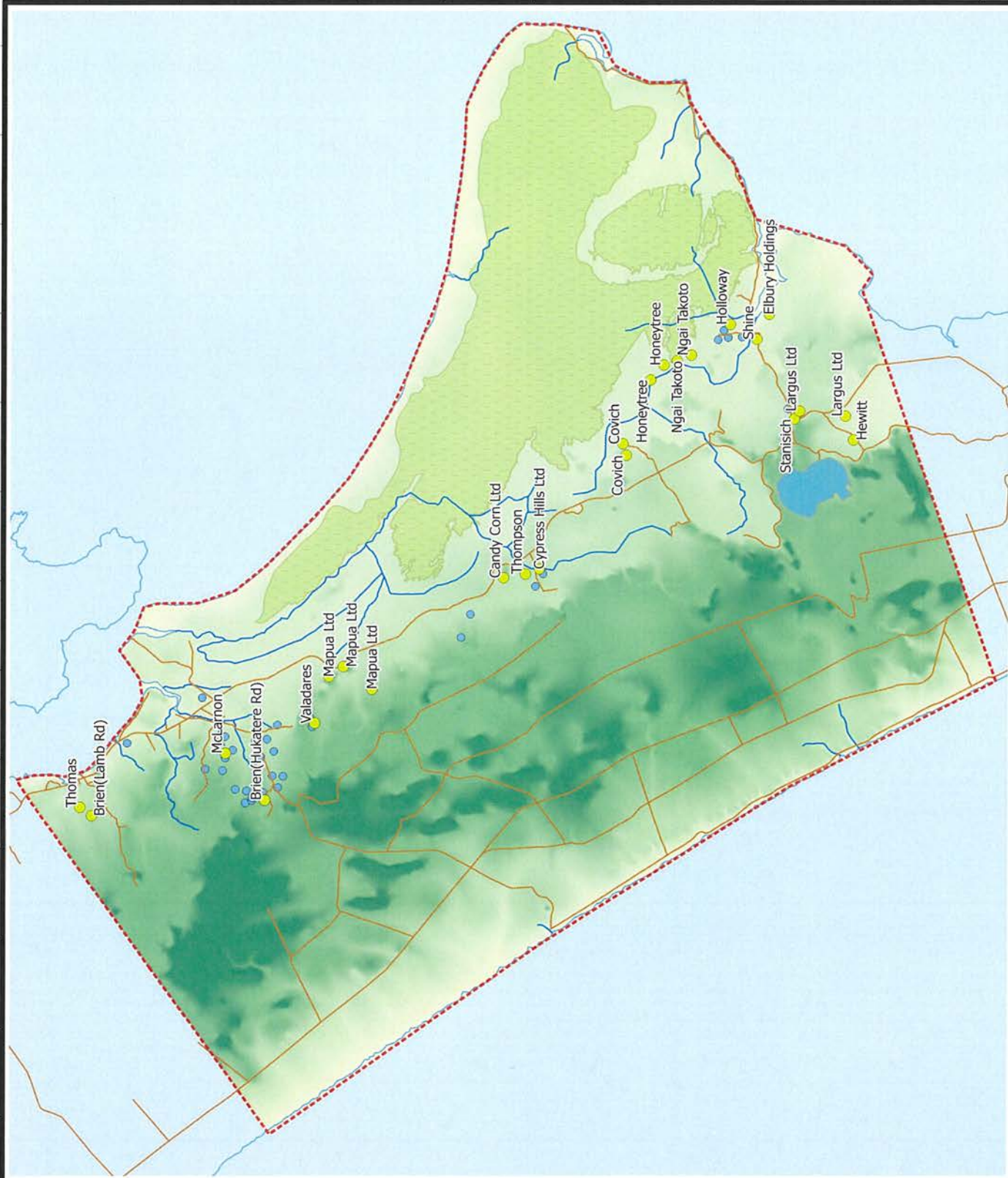


- Legend
- New groundwater take (Yellow dot)
  - Existing groundwater take (Blue dot)
  - Drain (Blue line)
  - Road (Orange line)
  - Kaimaunau wetland (Light green area)
  - Lake Waiparera (Blue area)
  - Model boundary (Red dashed line)
  - Topography (mAMS) (Color scale: 0, 20, 40, 60)

GIS by:



Figure 1.





Map Title:

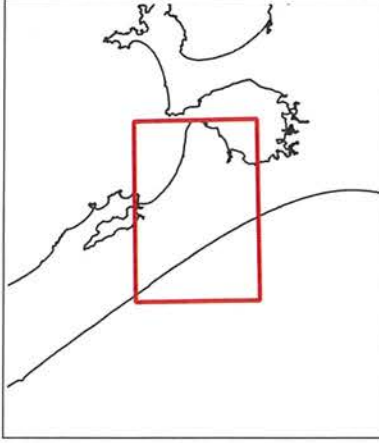
Simulated drawdown of shallow aquifer (Scenario 2)

Project:

Motutangi - Waiharara Groundwater Model

Client:

Motutangi - Waiharara Water Use Group



Legend

- New groundwater take
  - Drawdown contour (m)
  - Kaimaumau wetland
  - Model boundary
  - Drawdown (m)
- |     |
|-----|
| 0   |
| 0.2 |
| 0.4 |
| 0.6 |
| 0.8 |

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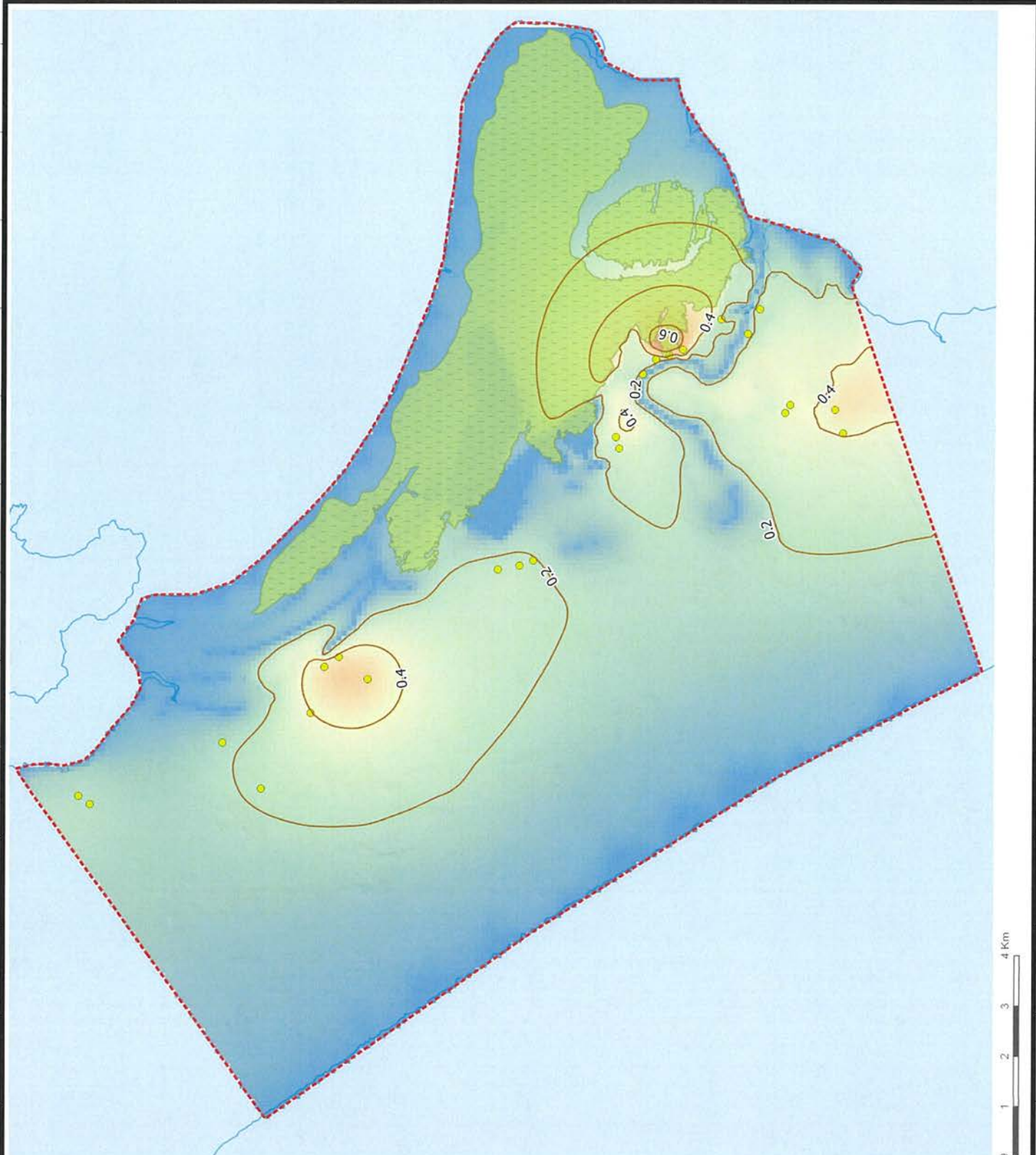


Figure 30.

Map Title:

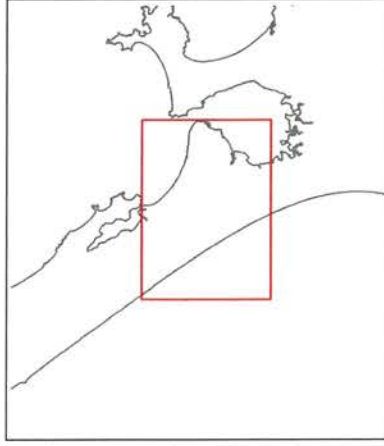
Simulated drawdown in deep aquifer  
(Scenario 4c).

Project:

Motutangi - Waiharara Groundwater  
Model

Client:

Motutangi - Waiharara Water Use  
Group



Legend

- New groundwater take
  - Kaimaumu wetland
  - Model boundary
  - Drawdown contour (m)
  - Drawdown (m)
- |     |
|-----|
| 0   |
| 0.6 |
| 1.2 |
| 1.8 |
| 2.4 |

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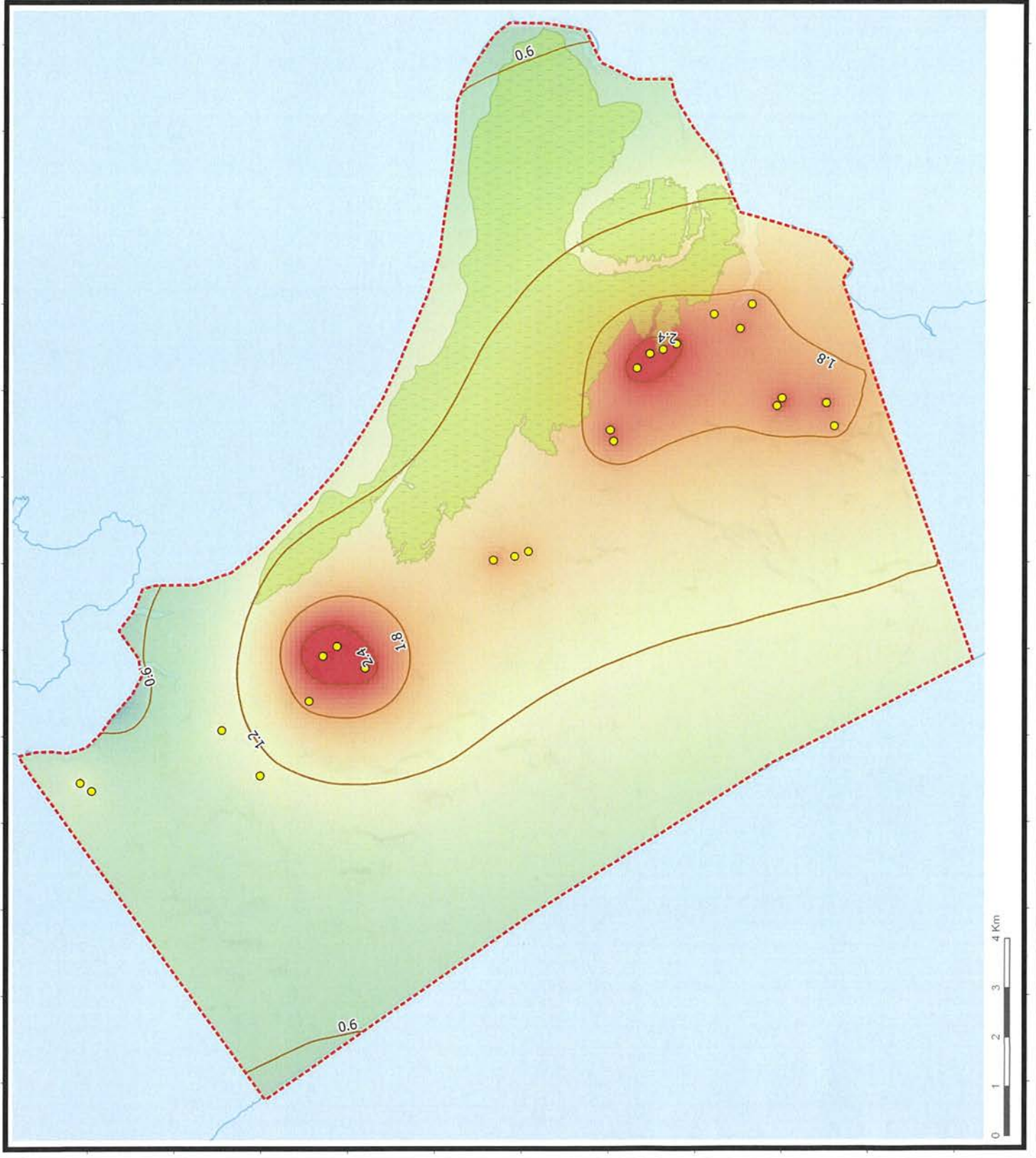


Figure 49.