

Bay of Plenty Region Geothermal Activity

2014

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Bay of Plenty Geothermal systems



Regional Role

Allocate heat and fluid
Sustainable use
Optimise long term use

9 known systems

Resource Value 2013

≈ 500K

= 5% of regional GDP

8000 direct and indirect jobs

Protect Significant Geothermal Features

**Approx 2000 Surface features
(who wins the beauty contest?)**

Steps:

- ✓ mapping and monitoring guidelines (2012)
- ✓ Rebuilt database for the new guideline parameters (2014)
- ✓ Loaded existing data into new database (2014)
- Start remapping [first get site access]
- Significance assessment using RPS criteria

Allocation

- Sustainable use** → Conservative allocation
- Optimise use** → smaller margin of error,
Allocation regime needs better data and better modelling

Let's up that challenge!

Multiple user systems

- Kawerau** = 3 big users (6-90 ktpd)
- Rotorua** = 160 small to medium users (<0.5 L/s – 550 tpd)
- Tauranga** = 140 – 240?* small to medium users (<0.5 L/s – 38 L/s)

Multi user systems

- Kawerau system management plan – in development via discussion with the users.
- Rotorua – gathering data
- Tauranga – gathering intel, to gather data

Allocation plans need good information

Reservoir monitoring + modelling systems with >100 users

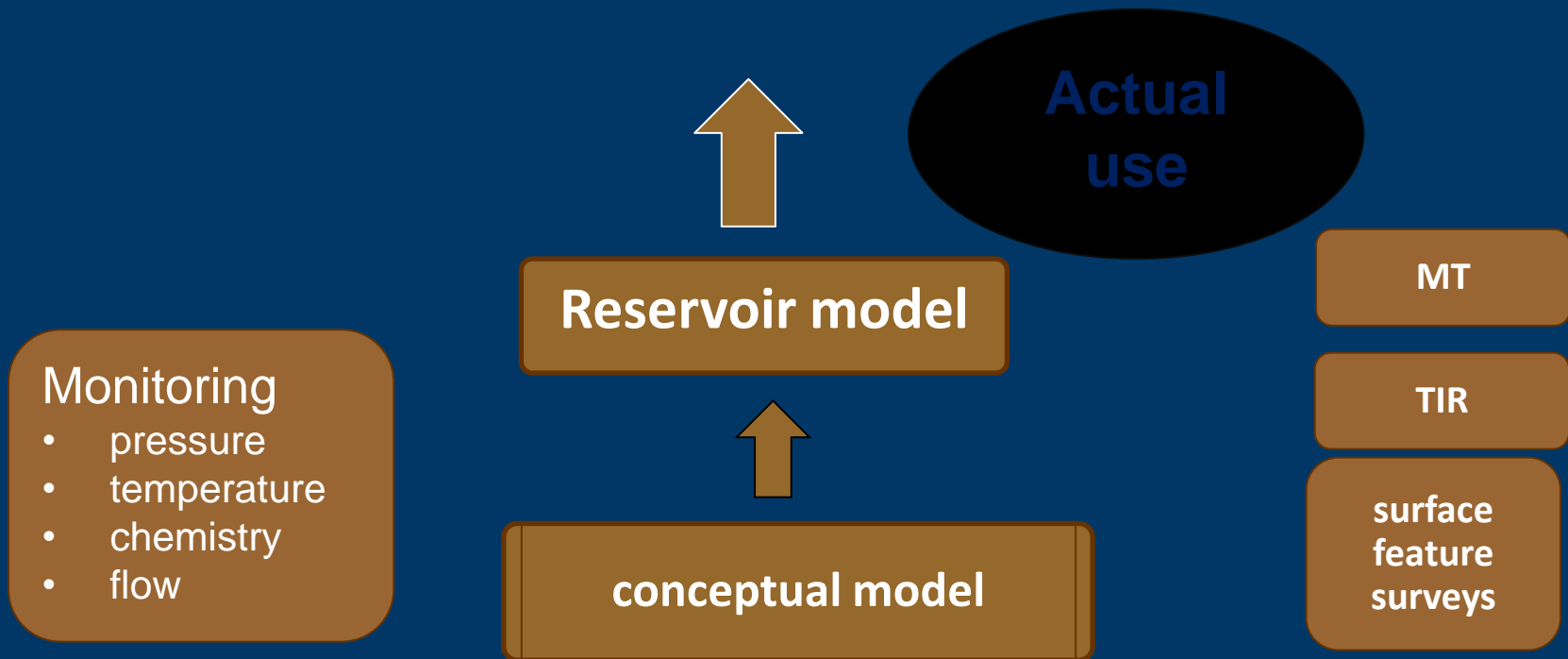
Rotorua – we need cost-effective flow measurements on users <300 tpd

Tauranga – *“needs data verification to improve the model’s value”*

i.e. we have a GIGO problem

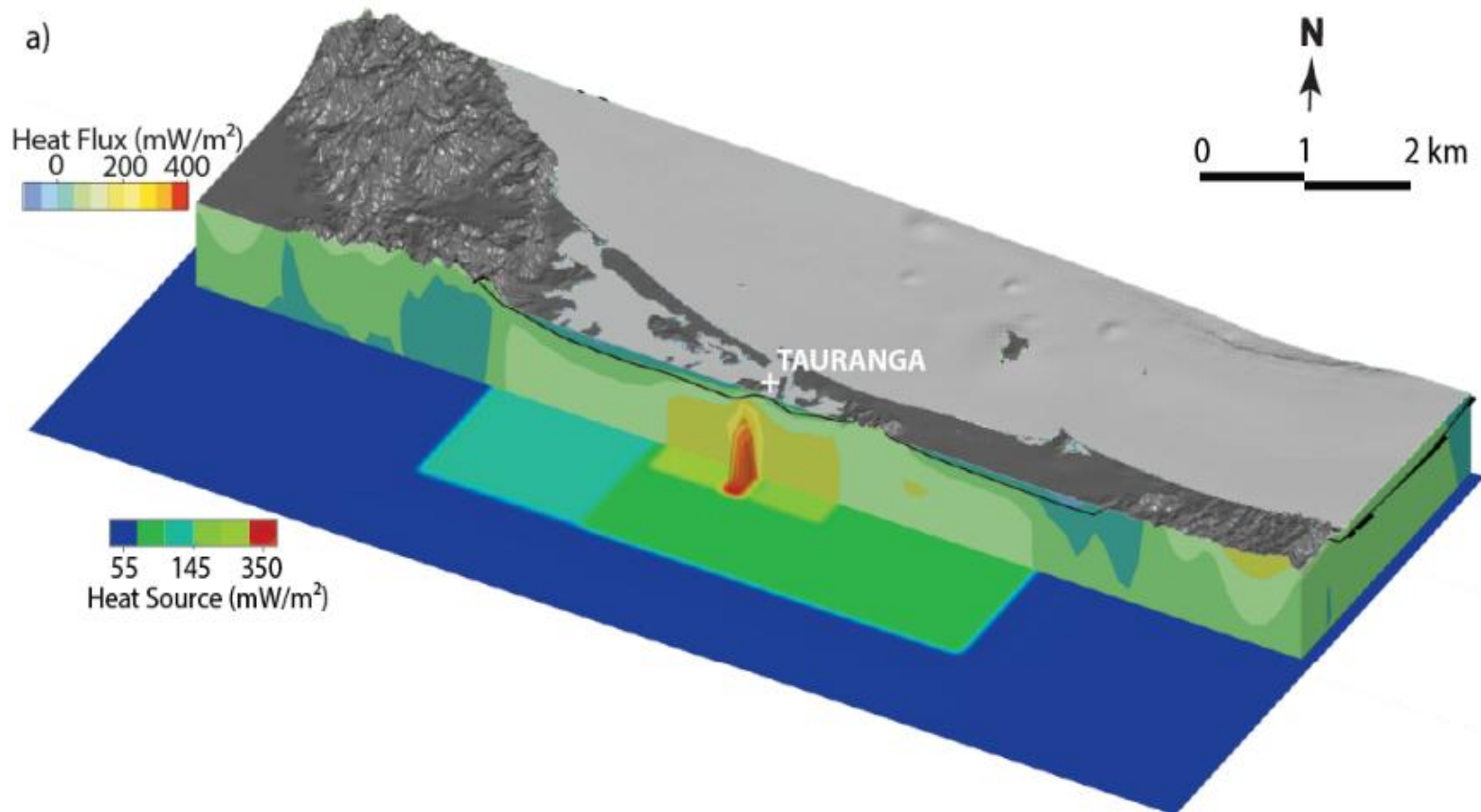
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Rotorua Optimal use



Tauranga Geothermal System

What and where is it?



**The hot embers of the Taupō Volcanic Zone
Conduction of heat to groundwater**

Tauranga Optimal use

Reservoir model

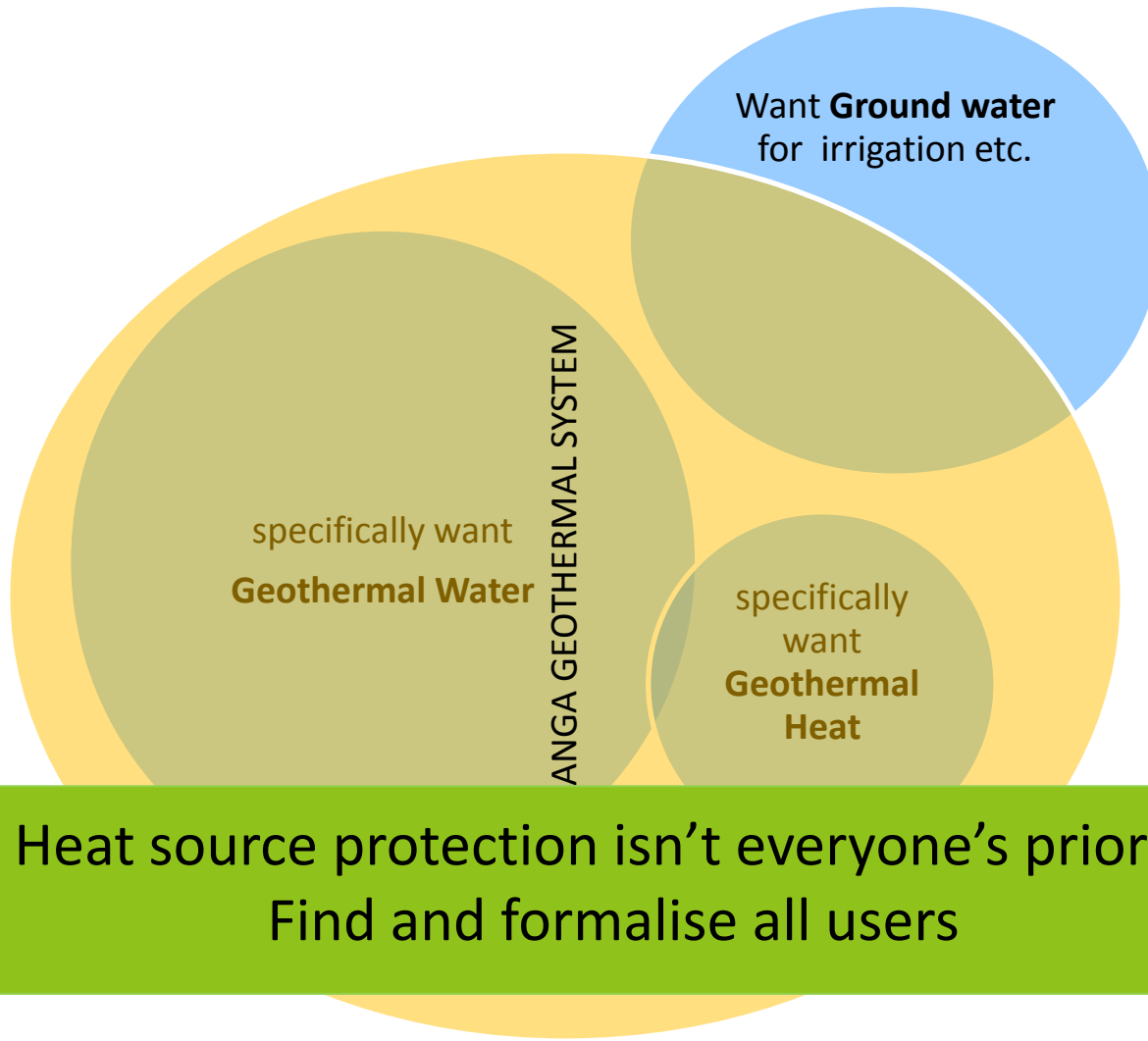
conceptual model

Monitoring

- temperature
- Some flow

Actual use?

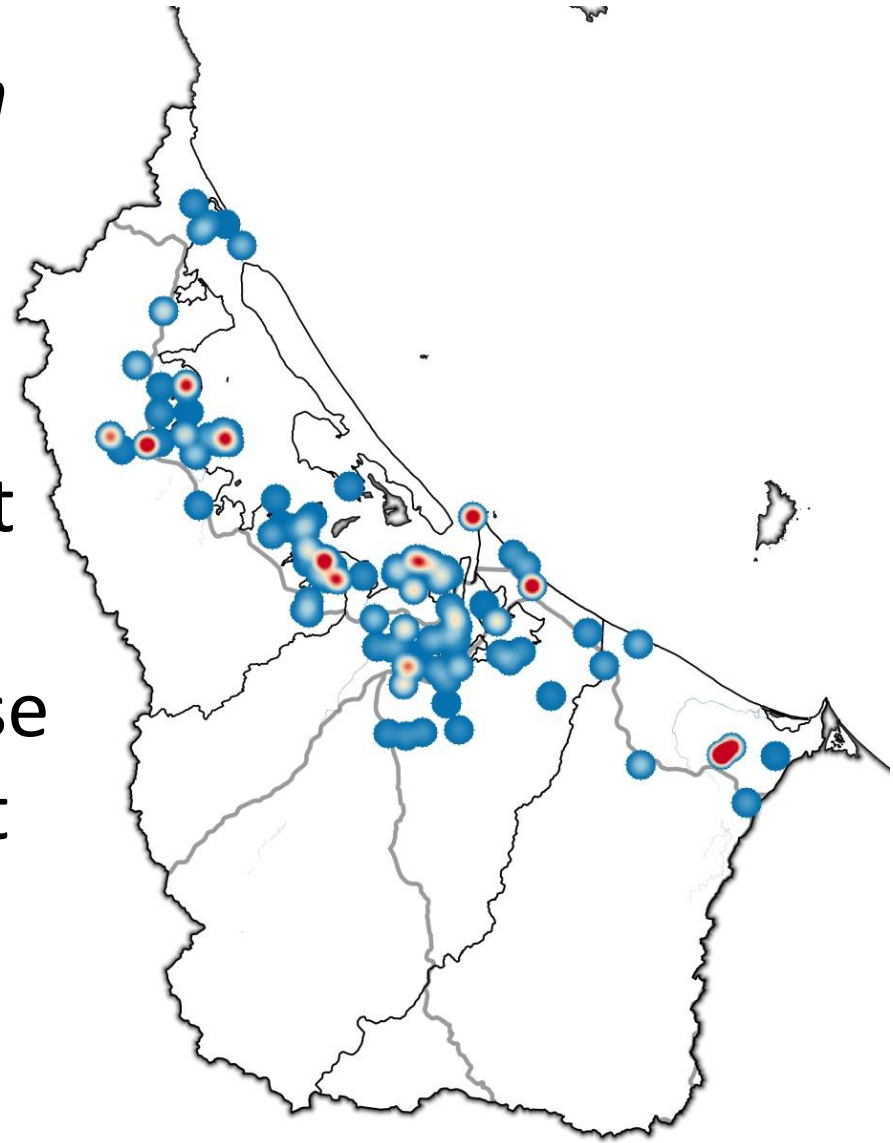
Tauranga system use



Heat source protection isn't everyone's priority
Find and formalise all users

Feed a model *enough*
for use as a decision
making tool

Integrate and present
data
so people can visualise
what you're on about



On the Consents front

I predict a whole lot of short term consents in Tauranga...