Canterbury and nitrates

Cr Vicky Southworth

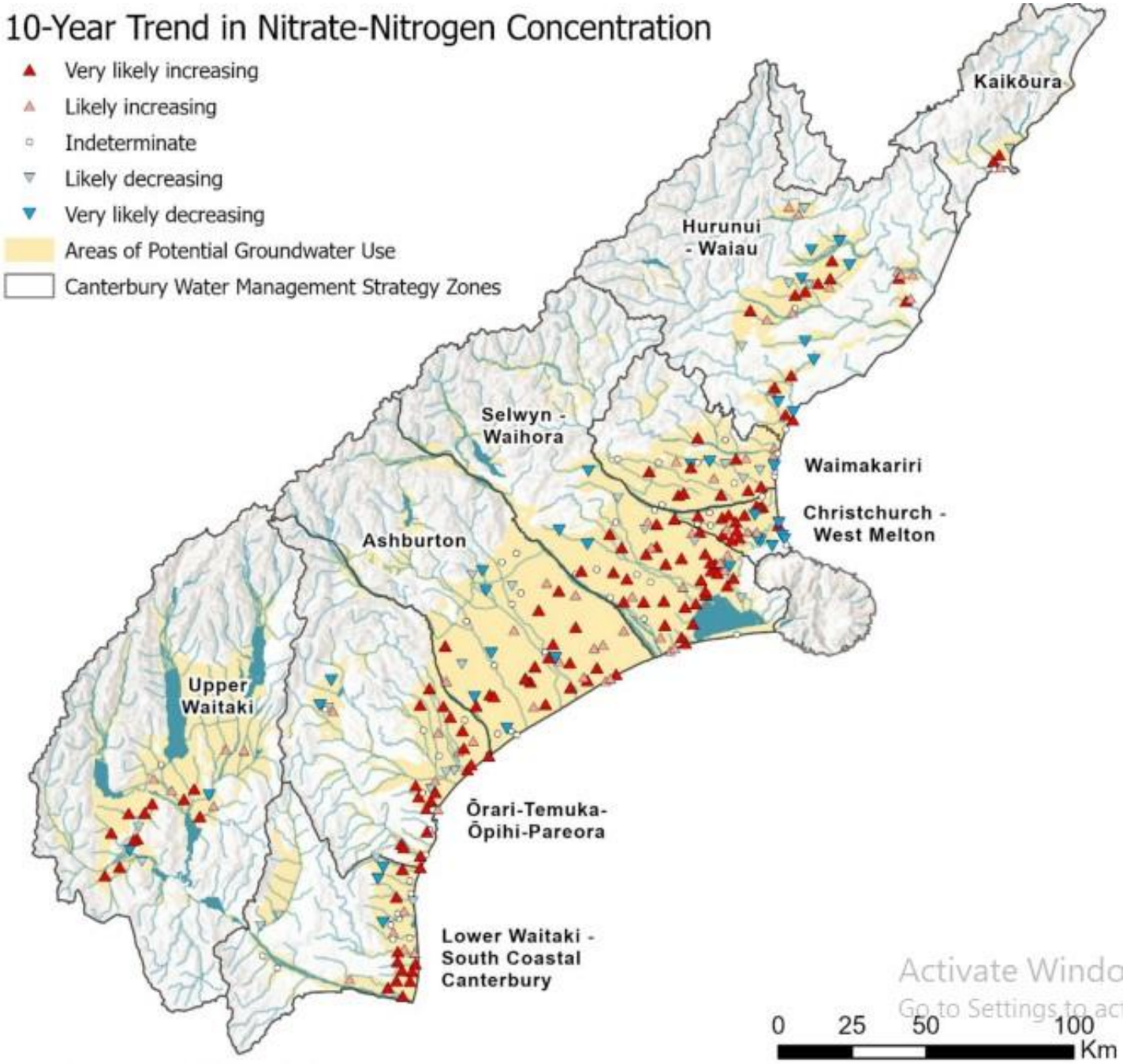
Regional Councillor, South Christchurch-Ōwhanga

What did the Notice of Motion say?

should take a leadership role to urgently address the issue of groundwater pollution impacting drinking water sources and supplies.

2. Requests that staff bring a workshop to the next term of Council to outline the scale, causes, spatial distribution, latest lag time research, and current and predicted impacts of nitrate pollution in Canterbury to enable a well-informed discussion and development of key steps Council can take to make more rapid progress on nitrate reduction in groundwater.

3. Requests advice on the indicative cost to drinking water suppliers and private well owners (nitrate receivers) of treating nitrate-enriched groundwater or finding alternative low-nitrate sources, and considers options to reallocate costs via a targeted rate, levy or other mechanism, such that nitrate polluters contribute to the costs of nitrate removal from drinking water.



ECan 2024 annual groundwater quality report

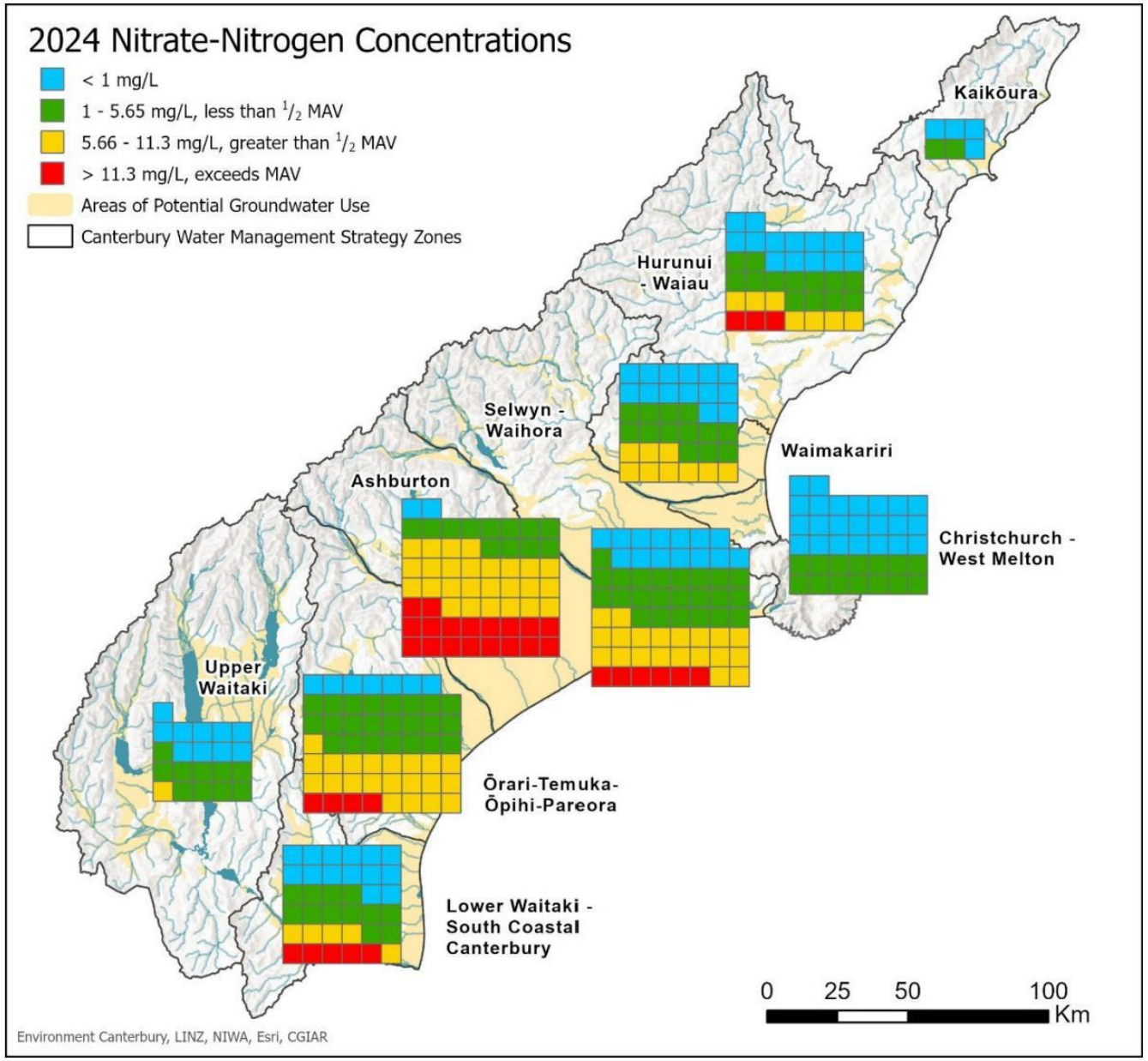
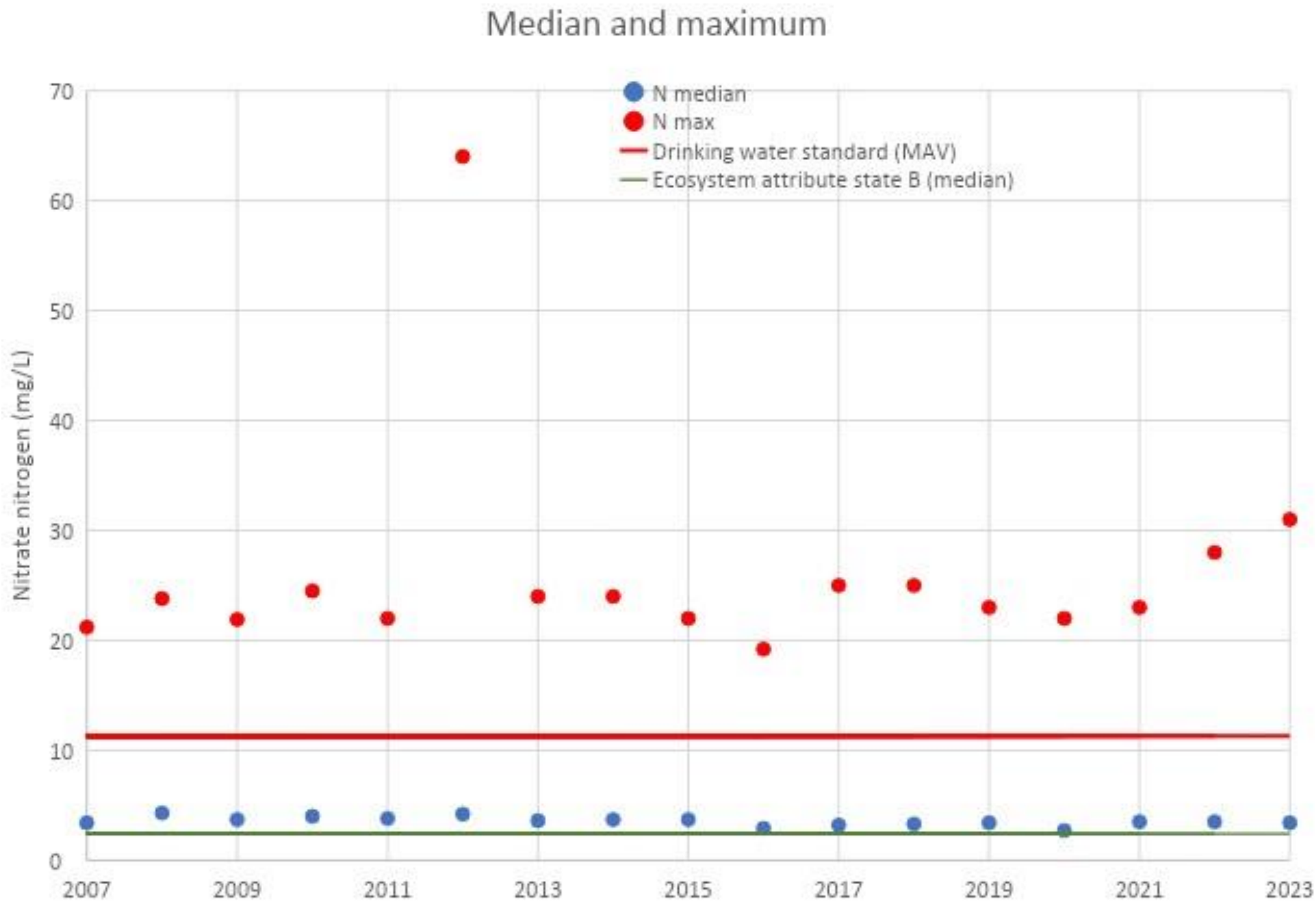
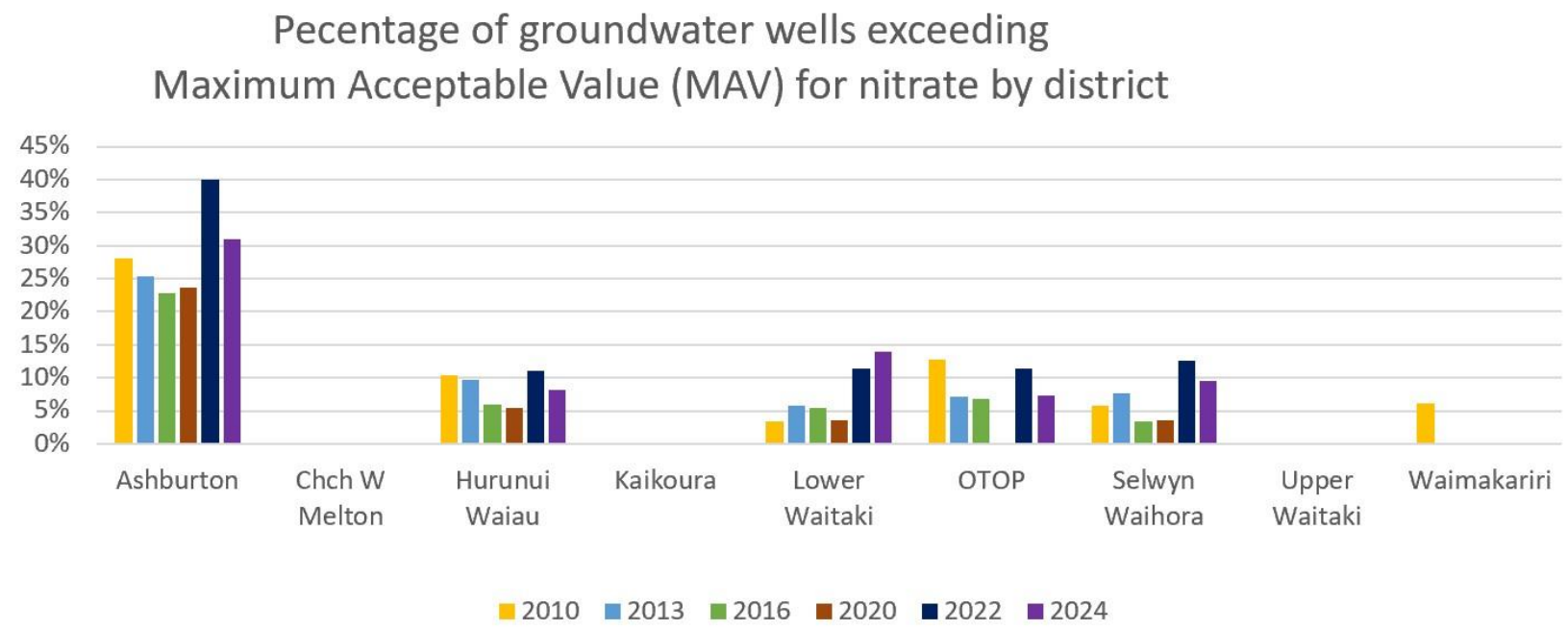


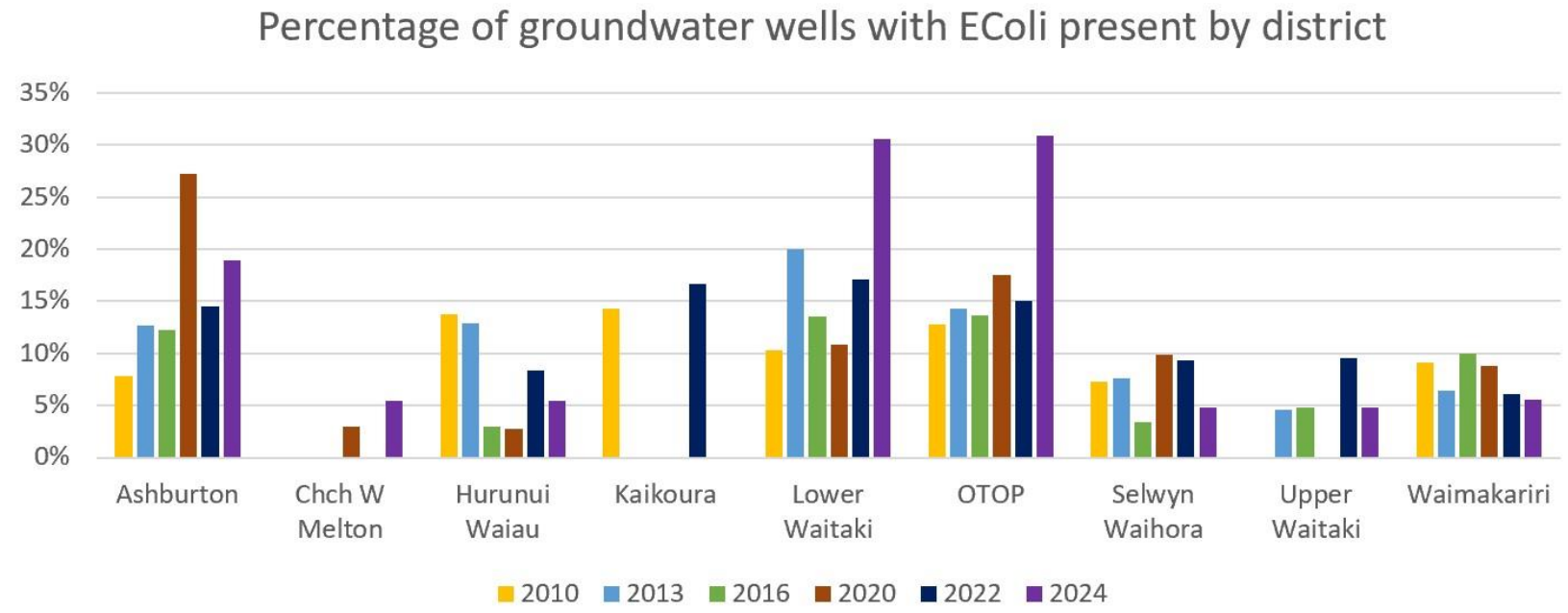
Figure 4: **Summary of nitrate-nitrogen concentrations sampled in the 2024 annual survey for each CWMS zone. One square represents one well**

ECan 2024 annual groundwater quality report



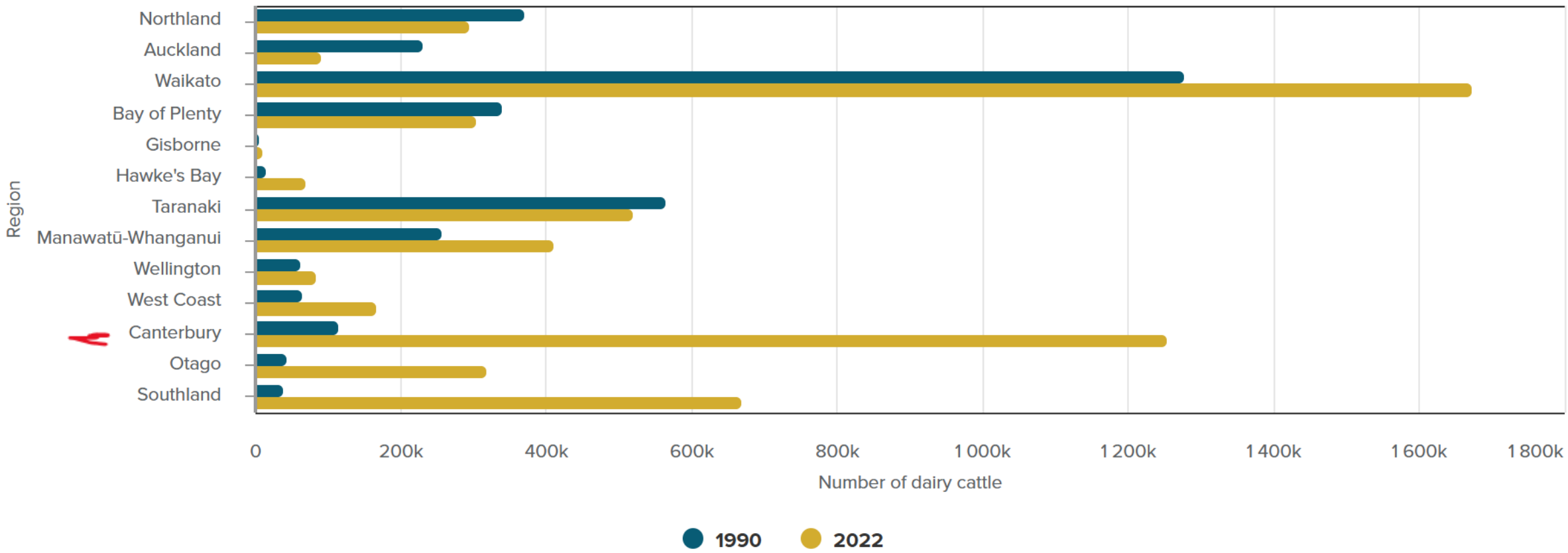
Presenter's graph based on ECan's annual groundwater quality reports





Presenter's graph based on ECan's annual groundwater quality reports

Number of dairy cattle in New Zealand, by region, 1990 and 2022



Marlborough, Nelson, and Tasman are not shown because they were a single council before 1992.

Stats NZ

Climate change impacts

47. We expect to see more frequent heavy rainfall events because of climate change. This will result in a higher likelihood of *E. coli* contamination events due to surface runoff. Heavy rainfall events also cause spikes in nitrate-nitrogen concentrations due to the release of nutrients from the soil.

From Regional Delivery Committee paper, Sept 10th 2025 on pilot study on nitrate-nitrogen and e Coli in private wells in an area of Selwyn District.

Solutions?

- Constructive respectful discussion
- Herd homes
- Fewer cows
- Changed lower N diet
- Improved effluent management (including human) – anaerobic digestion?
- Bale grazing
- Catchment groups to find collaborative solutions
- Better regulation in the right places, less where it enables change
- Wetlands
- All of the above and more ?????

Questions/Pātai?