

Media release to be released Wednesday 6 December 2023

Aerial mapping of aquifers to get underway this summer

A scientific project gets underway from the end of January 2024 to understand more about Tairāwhiti's groundwater, after being postponed earlier this year because of Cyclone Gabrielle.

The project involves surveying underground aquifers - areas of natural underground water storage where water flows into and is stored below the ground between rocks and sediment. The surveying will be undertaken by helicopter, using aerial electromagnetic (AEM) technology to 'see' under the ground.

Aqua Intel Aotearoa (a partnership between GNS Science and Kānoa - Regional Economic Development and Investment Unit, funded by the Provincial Growth Fund) is working with Gisborne District Council to plan the survey, in discussion with Te Runanganui o Ngāti Porou, Tāmanuhiri Tūtū Poroporo Trust, Te Aitanga a Māhaki Trust and Rongowhakaata Iwi Trust.

The survey will start in the north of the region, around Wharekahika/Hicks Bay, Te Araroa, Waiapu and Tolaga Bay in late January, subject to suitable weather. Surveying of the Poverty Bay flats aquifers will happen in February.

Aqua Intel Aotearoa Programme Director Jane Frances says the information being gathered will help plan for greater resilience to extreme weather events through, for example, identifying potential future sources of drinking water.

Ms Frances says iwi have indicated they support the objective of gathering scientific information to guide decision making, but see that there is more work to do on arrangements for accessing, storing and using the data for future purposes.

"Aqua Intel Aotearoa is committed to ensuring data management arrangements work for iwi and Council. The Government's investment in this project is intended to provide high-quality science and the data to help understand how to protect and use land and water in order to improve the wellbeing of wai, whenua, and whānau", said Jane Frances.

Gisborne District Council Chief of Strategy and Science Jo Noble is supportive of this project.

"We welcome this significant investment from central Government to enable this research to be undertaken and to provide us with invaluable data to help guide future decision-making around freshwater."

Further information

AEM surveying involves flying over the land with a loop system suspended from a helicopter. Transmitters send electromagnetic signals underground, and sensors measure the behaviour of the returning signals. Similar to radar, we can 'see' what's under the ground by looking at the way the signals return.

This is a safe and effective measurement tool that is used around the world and has been used to survey aquifers in Northland, Hawkes Bay, Wairarapa and Southland.

The technology is safe for people and animals. Because the helicopter is moving at high speed, there's very limited exposure to the electromagnetic signals. It's safer than watching an LCD or plasma TV or blow-drying your hair.

The project will not be gathering data or information on anything above ground. While the helicopter will carry a camera, this is only to guide the crew managing the slung load, and no photos or video will be retained or shared.

The survey is primarily funded by the Government through AIA, with a contribution from Gisborne District Council. International specialists SkyTEM Australia and a New Zealand helicopter company will fly the survey.

See a video describing this project [here](#)

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For further information contact communications advisor Janice Rodenburg on 021 705 301 or visit www.aquaintel.co.nz or email info@aquaintel.co.nz