

# Poutō Groundwater Study

Image: Northland Regional Council

Aqua Intel Aotearoa is working with Te Uri o Hau and Northland Regional Council (NRC) to increase the level of understanding of the Poutō groundwater resource. This information will help us make better decisions about how we protect and use our land and water, to improve the wellbeing of our wai, our whenua, and our whanau.

## Who is involved in the project?

The project is being undertaken by Aqua Intel Aotearoa (AIA), a collaboration between Kānoa (the delivery arm of the Provincial Growth Fund) and GNS Science. The primary aim of AIA is to deliver projects to improve our understanding of regional water resources.

AIA is engaging with Te Uri o Hau through the Te Uri o Hau Settlement Trust and NRC to determine the locations where monitoring would be beneficial for, and supported by, Te Uri o Hau. NRC aim to improve understanding of the groundwater resource in this area, particularly the potential interaction between groundwater in Poutō and Ruawai.

## What are the project outputs?

The outputs from the project will be:

- Data inventory of existing groundwater information available in the area.
- Detailed geological logs and aquifer characteristics for newly drilled bores.
- Monitoring of groundwater (monitoring can be continued beyond the AIA investment).
- Development of a conceptual model, including how groundwater interacts with surface water in the study area.
- Reporting of the work undertaken and what it tells us about water in the study areas.
- Case study for data governance and management of outputs from this project

## Who is funding the project?

The project is primarily funded by AIA, with co-funding contributions provided by NRC and GNS Science.

## What are the project aims?

AIA aims to increase knowledge of water availability and groundwater flows in the southern part of the Pouto peninsula. This work will support Te Uri o Hau to understand the groundwater in Pouto, so that they can consider whether groundwater abstraction is an option. **Te Uri o Hau** aims to enhance its knowledge about water in the study area, including potential sources of drinking water and water to bring their whenua into production in an environmentally sustainable way. Better data on water levels will inform whether there is scope to use water for these purposes without undermining the health of waterways, including dune lakes, wetlands and springs. Further, this work will provide additional information that could inform long-term planning and sustainable groundwater allocation.



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## Engagement & korero

AIA has formed a project team with Te Uri Hau Settlement Trust and NRC . The team is planning korero with local groups to determine:

- whether they are supportive of monitoring being undertaken at the proposed locations; and
- arrangements for engaging with the project and its outputs over its lifetime and into the future.

AIA will work with Te Uri o Hau to prepare a report and presentation that draws together findings of the groundwater monitoring.

## How are drilling/testing sites selected?

Scientists have broadly identified where there are gaps in the borelog information. The next step will be to identify specific drilling/testi sites to fill the gaps and support better understanding of the underlying geology.

Primary aspects that will be considered for selection drilling sites include:

- Geology
- Distance to existing bores
- Distance to surface water bodies
- Access
- Ground elevation

## For more information, please:

- visit [www.aquaintel.co.nz](http://www.aquaintel.co.nz)
- email [info@aquaintel.co.nz](mailto:info@aquaintel.co.nz)
- speak to a Project Team member

## Estimated project timeline:

- June 2022: Review existing information and bore logs
- August – December 2022: Engage with community on process and outputs
- September – December 2022: Identify gaps for two new bores and undertake groundwater drilling
- Early 2023: Conceptual groundwater model
- July 2023: Share results with community

*Example of an air rotary drilling rig, during groundwater drilling (operator for scale).*



*Example of a lockable well head, c. 1.2 meters high. A similar structure will remain at each monitoring site.*