

**Date:** Monday 30 March 2026  
**Time:** 1.00pm  
**Meeting Room:** Tākaka Office, 78 Commercial Street, Takaka  
**Venue:**

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## Golden Bay Community Board

### MINUTES ATTACHMENTS

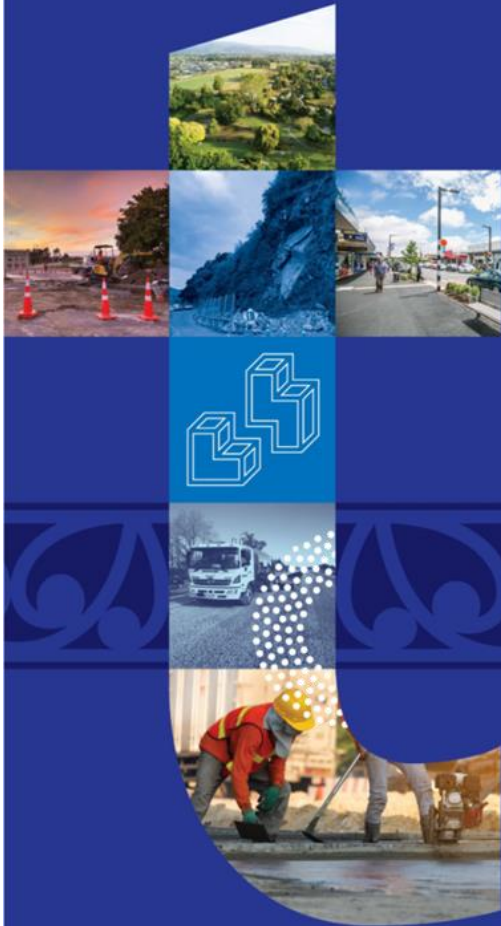
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<b>ITEM</b>	<b>PAGE</b>
RGB26-03-2 Waikouropupu Springs Water Conservation Order & Catchment Hydrology Monitoring	
Attachment 1 Te Waikouropupu Springs (TWS) Water Conservation Key Aspects .....	2

PUBLIC FORUM: Council provides the opportunity for public forum input at its ordinary meetings. The views and opinions expressed in public forum do not necessarily reflect the position of the Tasman District Council, Council officers or elected members

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# Te Waikoropupū Springs (TWS) Water Conservation Order (WCO) & Catchment Hydrology and Monitoring

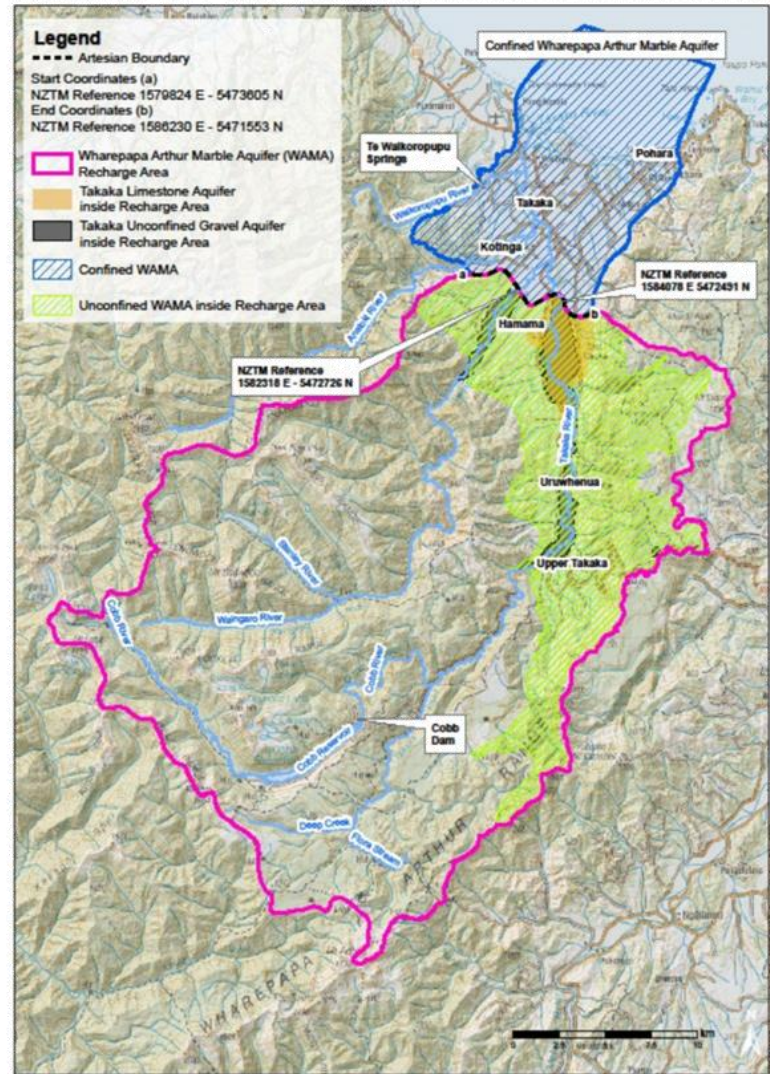


Joseph Thomas  
Monique Harvey





# WCO Area - Tākaka

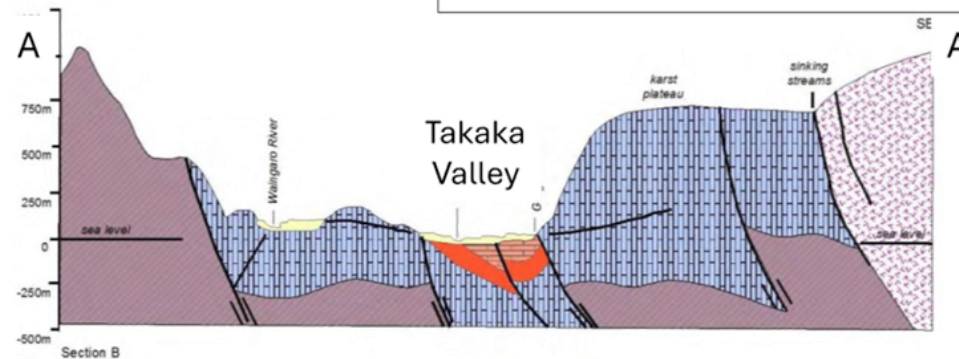
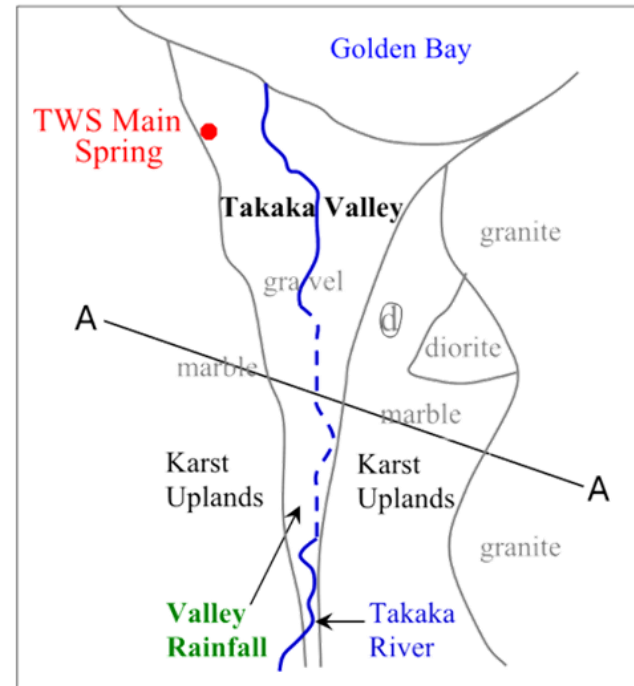


# Hydrogeology of the Tākaka Valley



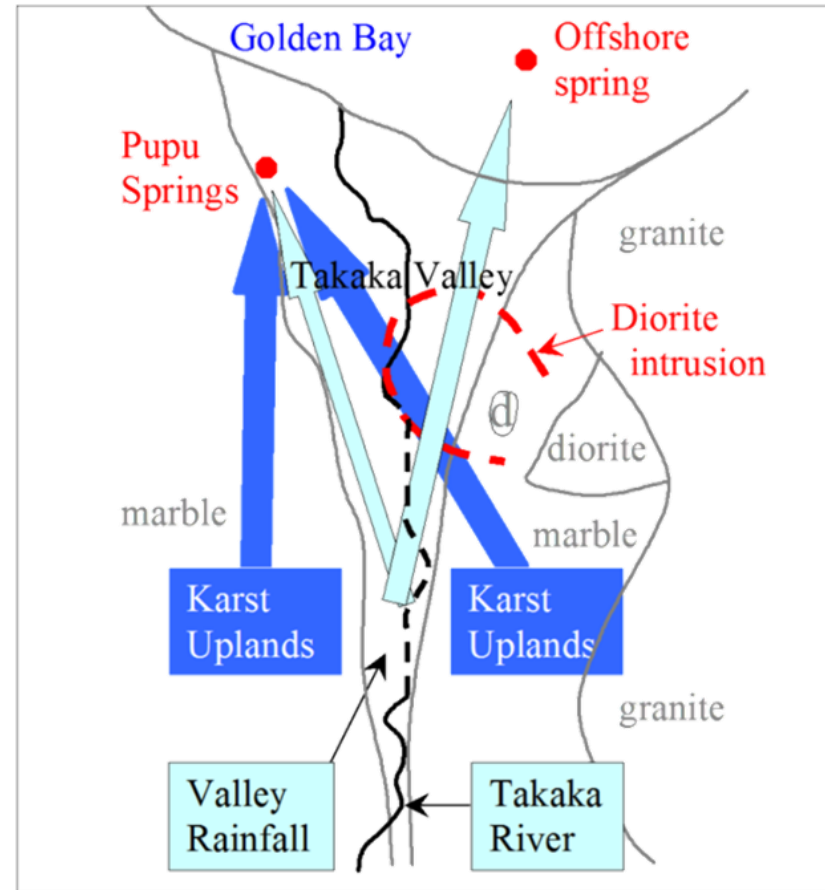
Water recharge sources

- Karst Uplands (KU)
- Tākaka River (TR)
- Valley Rainfall (VR)



# Recharge sources of TWS

**Karst Uplands (KU)**  
**Tākaka River (TR)**  
**Valley Rainfall (VR)**





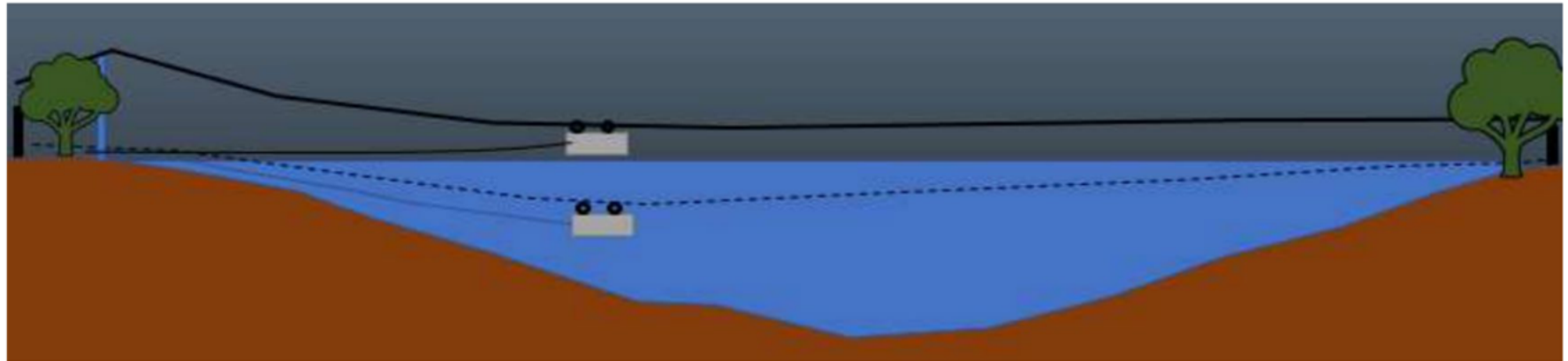
## Te Waikoropupu Springs (TWS) Water Conservation Order (WCO) October 2023

- WCO's are a national Statute (Act – signed into effect by the Governor General)
- TWS WCO came into effect 19 October 2023
- TWS has set minimum flow for TWS (6985 l/s) and an allocation limit (766 litres) for the recharge area of TWS (WAMARA)
- Current allocation about 500 l/s – but cant grant any permits for any activity that adds nitrate until the WCO water quality limits are met
- WCO Water quality limits
- Nitrate – Nitrogen 0.41 mg/l
- Dissolved Reactive Phosphorous 0.005 mg/l
- Compliance check for both is based on monthly testing at (Main Spring & Fish Creek Springs) – is based on 5 year rolling median
- Othe limits re are for Dissolved Oxygen (reduction in 5<sup>th</sup> percentile DO saturation below 45 %) and Water Clarity (reduction of median value of 72 metres or a 5<sup>th</sup> percentile value of 68 metres) at the main spring - over at least a 3 month period between Oct & Jan and this is to be done min 5 yearly with the first round done within 1 yr of the order gazettal. Cost of this now ~70K m- Done in Oct 25 – Jan 26 – well within limits.
- Court recommended independent expert review and recommendation for catchment monitoring of the recharge area. This has been underway since April 25 and subject to review after 1 year of monthly sampling of multiple sites with future recommendation after that. Staff resourcing and testing cost order of 100+ K

## TWS WCO continued

- Cobb Dam, Existing dairy shed water use and the salmon farm hatchery activities (water use) allowed to continue and not restricted by the order
- Court required Council to notify a regional plan to manage water and land use to achieve the limits set by no later than 31 Dec 2024
- The regional plan has been developed but unable to be actioned (notified) due to the RMA reforms and the prohibition of any regional plan unless special permission from the RMA reform minister is obtained.
- Council has sought special permission last year and further information requested subsequently from ministry officials has been submitted last year – but there has been no further feedback bar the information is being evaluated at the time of writing this summary in late January 2026.
- The current statute provided for any party to the order seeking a review post 2 yrs of the order being gazetted.
- The court has provided a clause in the WCO for technical amendments to be made as the nature of the complex catchment and uncertainties. However even though the clause is in the order the current legislation does not provide a simple path, bar back to a Special Tribunal and then an Environment Court process,
- There is a lot of detail in the science and emerging information from the current detailed monitoring program..
- The RMA changes (this aspect in the Natural Environment Act) has largely kept the WCO provisions – but has several tweaks to the section on WCO's.
- The proposal NEA act is going through a submission and select committee process before the readings in parliament and enactment planned for July/August 2026.

# Clarity/DO Monitoring - Schematic of Instrument Deployment 24/25



# Sensor & Deployment



# Base Station and Deployment of sensor into the Main Springs



# Underwater pictures



# Underwater pictures



## Results from Monitoring 24/25

- The springs had a stable DO throughout the monitoring period with a median DO saturation of 59.3%, and average of 59.4%, with a 95 % confidence interval at 58.4 to 60.4 %. The 5<sup>th</sup> percentile is positioned at 57.4 %. The WCO requirement 1.4 (a) for DO is any reduction in the 5<sup>th</sup> percentile DO saturation in the main spring to (not be) below 45 %. *The measured results show that the levels are well above the minimum levels for DO specified in the WCO.*

## Results DO and Clarity

- The water clarity measurements also confirmed the exceptional visual clarity of the springs, with a median of 78.5 m and mean of 78 m, with a 95% confidence interval of 74.0 to 81.9 m. the 5<sup>th</sup> percentile was 74.4 m. The WCO requirement 1.4 (b) for any reduction in the water clarity in the Main Spring (to not be) below a median value of 72 metres or a fifth percentile value of 68 metres. *The measured results show that the levels are well above the minimum levels for clarity specified in the WCO.*

# Catchment Monitoring - Independent Review

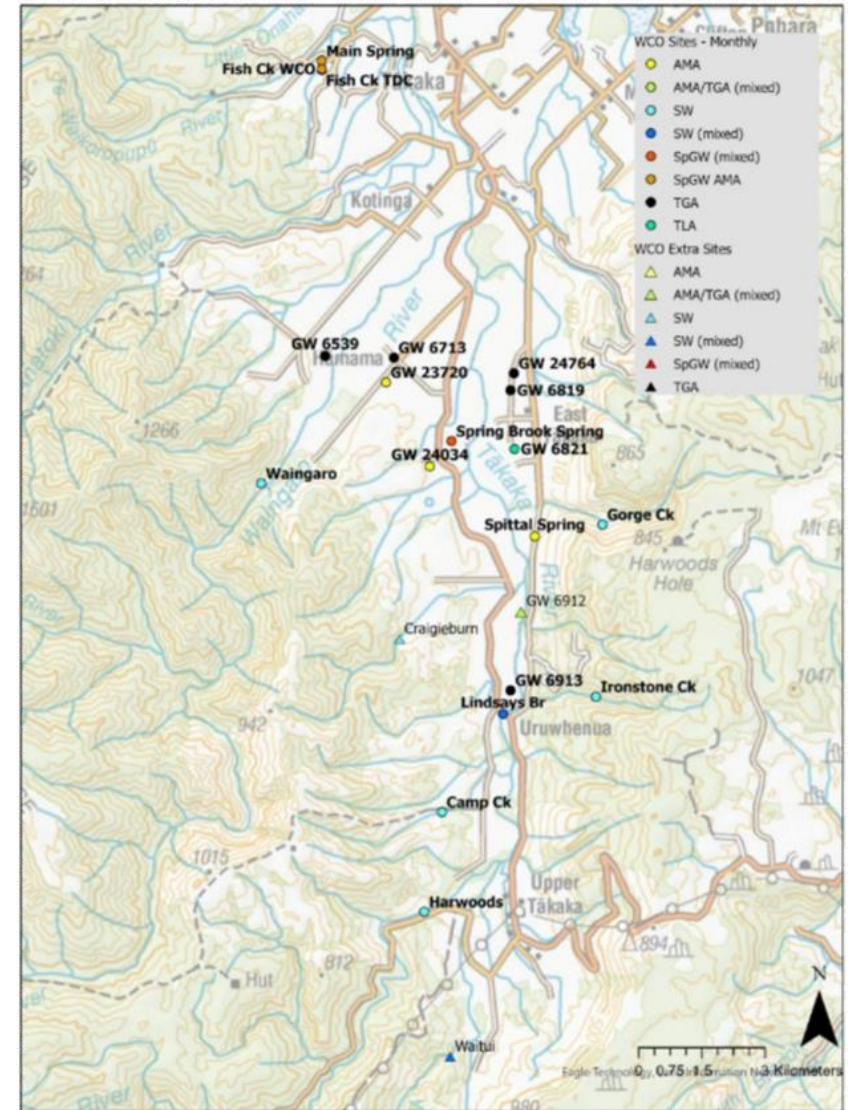
- One of the recommendations in the Environment Court WCO report was that an independent review of the catchment monitoring programme be undertaken with recommendations for a further monitoring programme
- The monitoring programme needs to provide an early warning changes in up-catchment water quality that could impact the springs
- The review has been carried out by Murray Close of the Institute of Environmental Science and Research (ESR) now known as Public Health and Forensic Science (PHF Science)

# Goals & Plan for Monitoring programme

- Enable compliance with Environment Court directives
- Provide early warning of up-catchment changes in water quality
- Ensure robustness of monitoring results
- Provide high quality data from key land-uses in recharge area that will enable much better constraints for hydrology, flow and water quality models to assist with management
- Plan is sampling all identified sites for a year then a review for ongoing future sampling – Initial testing comprehensive suite of parameters then reduced. Chemical testing coupled with isotopic testing re sources of water (Oxygen18) and Tritium re: age. Also provision for repeat of 10 year synoptic testing and opportunistic sites to fill gaps.

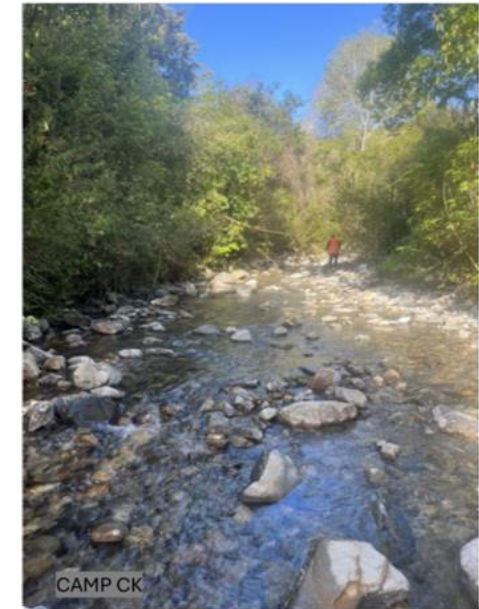
# Tākaka WCO – Sampling Site Locations

- Monthly sampling
- 4 days in the field
- Courier cut off time to meet
- Co-ordinate with Hills Labs, driller & land owners



# Where to view the results

- TDC Website – public can view the basic results here – Nitrate-N, DRP, DO Saturation
- [Groundwater Water Quality Data | Tasman District Council](#)
- Landowners – provided with a link to a more comprehensive set of results
- [Landowner Data Report](#)

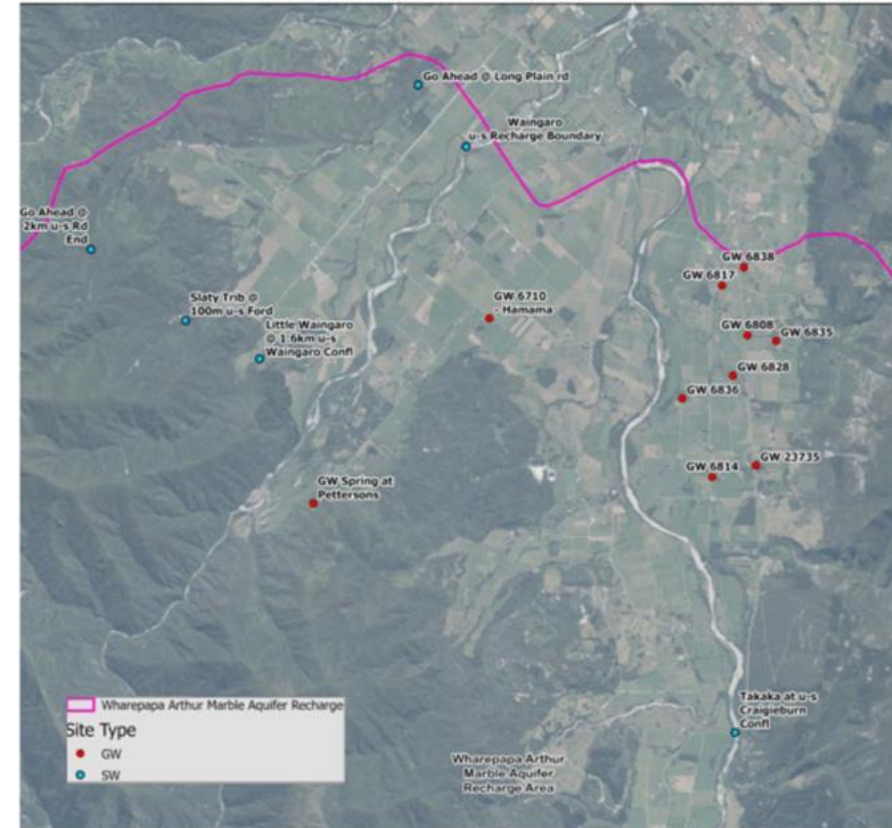


### Tākaka WCO - Photos



# Tākaka Synoptic Survey – Sampling Site Locations

- One off sampling in March 2026



# Questions?