



Waitaki

DISTRICT COUNCIL
TE KAUNIHERA Ā ROHE O WAITAKI



See inside for an update on progress since January's public meeting, the community survey results and what's happening next

LAKE OHAU ALPINE VILLAGE WATER SUPPLY UPGRADE

UPDATE
APRIL 2019

Background

In December last year, Council sent you a newsletter outlining plans to upgrade the Lake Ohau Alpine Village Water Supply. The upgrade will ensure residents and visitors are supplied with safe drinking water that complies with the NZ Drinking Water Standards.

The last newsletter included two service delivery options requesting your feedback on whether the supply should be:

- **on-demand or restricted?**
- **chlorinated or not chlorinated?**

A survey went out to Lake Ohau ratepayers after a meeting with residents and ratepayers in the village on 3 January. The purpose of the meeting was to talk through the upgrade and answer questions.

This newsletter is to update you on progress since the public meeting, the survey results and plans for moving forward.

Further information, including all relevant documents, is available at:

www.waitaki.govt.nz/our-services/water-and-wastewater/watersupplyupgrades

If you have any further questions, email us at: ohauwaterupgrade@waitaki.govt.nz

What's happened since the public meeting?

Feedback from the community has been helpful and a community task-force was created at the public meeting with the agreement of those present.

Since that time, we've had several meetings with the task-force to further discuss other options.

As a result of these meetings and the survey results (which are discussed further on the following page), the preferred way forward at this stage is to:

- ▶ not add **CHLORINE** to the supply
- ▶ make the supply **ON-DEMAND** (water as needed directly from the point of supply)
- ▶ not use the **EXISTING WATER SOURCE** (located on private land)
- ▶ use **BORES** to access groundwater for the water supply
- ▶ investigate alternative sites to **MCKINNON RESERVE** for the bores and treatment plant

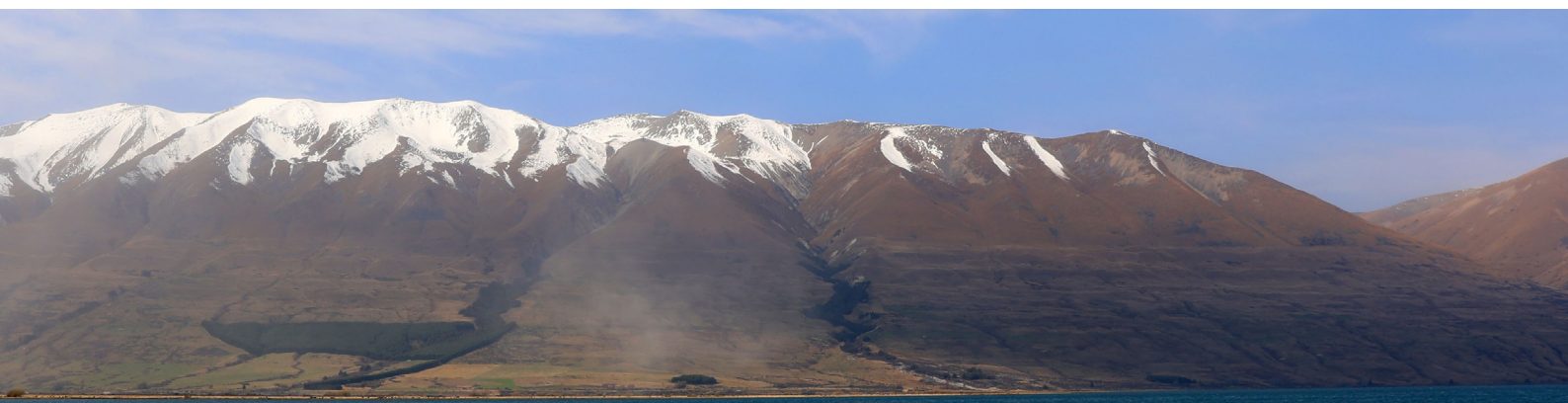
Where to next?

We're working as quickly as possible alongside the task-force to identify the best location for the supply bores and treatment plant.

A hydrologist is investigating groundwater capacity and flows around the village. The initial feedback is that while groundwater is available further away from the lake, additional bores would be needed to get enough of this water to supply the village, which would make the upgrade more expensive.

We will discuss the hydrologist's findings further with the task-force and look at the options to go forward with.

We'll come back to the community again with more information once options and costs have been confirmed. The aim is to have a report ready for Council to make a decision on the options.



Survey results and comments

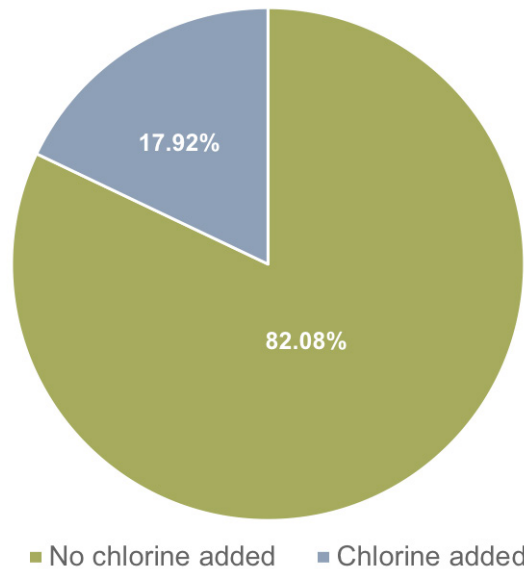
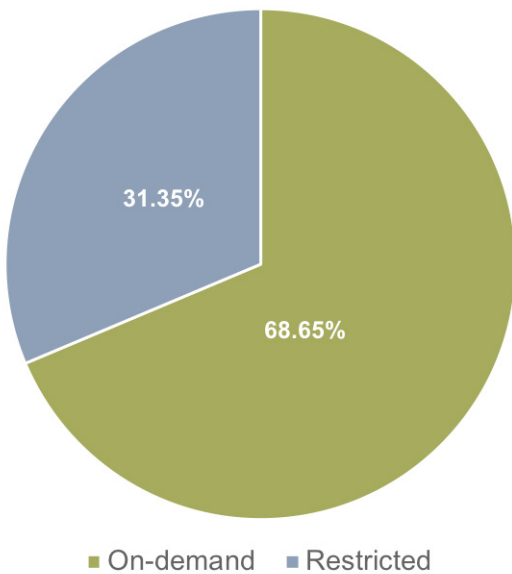
Thanks to everyone who took the time to complete the survey - we received 71 survey responses.

In the survey several respondents included comments and questions on a range of other issues associated with the upgrade. Many residents also took the opportunity to email us with questions.

As there are too many to include in this newsletter, we have grouped them by topic and made them available to view at: www.waitaki.govt.nz/our-services/water-and-wastewater/watersupplyupgrades

We've included some of the issues raised on the following page.

Overall, the survey results indicated a high level of support for an on-demand supply (water as needed directly from the point of supply) which is not chlorinated:



On-demand or restricted?

While the majority of survey respondents want an on-demand supply, those that don't noted concerns about issues such as water conservation, the impact of power outages on supply and on those who already made provision for a restricted supply by purchasing storage tanks.

Based on the survey results, it is most likely the supply will become on-demand.

Systems to ensure supply continuity during power outages will be built into the upgrade design.

We are confident Lake Ohau residents and visitors will continue to use the water supply responsibly, so have no immediate concerns about water conservation. If this ever does become an issue, our Water Supply Bylaw will enable us to take appropriate action.

To chlorinate or not?

More than 80% survey respondents indicated they don't want chlorine added to the supply.

Based on the survey results, we have decided not to chlorinate the supply at this stage, however, we will build capacity for chlorination into the upgrade design. This is because there is a high chance the Government will make it mandatory in the future and including capacity now is cheaper than adding it in later on (having to build an extra room later on, along with chambers for chlorine dosing, sampling etc, will cost more in the long run).

There was a variety of reasons people were against chlorination. Notably, there was concern about the effect it can have on copper pipes and hot water cylinders. Under certain circumstances, it is possible chlorine can cause damage. If we add chlorine to the supply at a later stage, we will adjust the pH of the water supply to reduce the risk of this happening.

Chlorine has recently been introduced to two other water supplies in Waitaki with little effect.

E. coli contamination

There were some questions about the E. coli results provided, level of contamination and risk to public health resulting from this.

E. coli contamination is a very real threat for many drinking supplies in New Zealand, no matter how small the level is and how intermittently it may appear, and Ohau is no exception.

While there has been no official record of anyone in the village getting sick from the water supply, the risk is there and it's vital we protect residents and visitors from illness. It's also the Government's expectation that we do (and reinforced through legislation).

NZ Drinking Water Standards

Some also questioned the requirement to comply with New Zealand Drinking Water Standards (NZDWS), which came into effect in 2007.

At the time the Standards came in, Council did question the need for some of Waitaki's smaller supplies to comply. The decision to upgrade all of Waitaki's supplies, including Ohau, was made in 2008 when it became clear the Government wouldn't make exceptions. In addition to that, we believe it is the right thing to do to protect our communities.

The legal requirement to meet the Standards hasn't changed since then - in fact, the Government has toughened up on them since the Havelock North contamination event and is increasingly focused on enforcement.

Water source quality

There were a few questions around why the current water source is not considered to be suitable.

The current water source is a stream (surface water) located on private land. According to the Drinking Water Standards, the levels of E. coli in raw water can vary, which is only acceptable if the water is then treated to the required standards.

The Drinking Water Standards have a threshold of less than 1mpn/100ml in treated drinking water.

Surface water is known to have higher variability in quality than groundwater, so generally needs more protective barriers and steps in the treatment process to be compliant. This makes it less reliable, riskier and costlier to manage.

Water source location

Access to the current water source is provided for under the Local Government Act (LGA) and through an existing easement.

The LGA allows for maintenance, replacement and emergency repairs and there are certain conditions on this access.

The existing easement for the pipelines, reservoirs and source states that *'the right to take and convey water in free and unimpeded flow is limited to the extent required by any period of necessary cleansing, renewal, modification, or repair of the easement facility.'*

Land access required for carrying out the water supply upgrade project is very likely to be beyond the scope of this easement and what the LGA allows.

There is a process under the LGA for extending the scope of access, however, this would be time-consuming, expensive and most likely unsuccessful.

This process is outlined in the *'Design Memo following community meeting - Fluent Solutions'*, which is available on the project webpage.

Location of bores and treatment plant

The original proposal was for the bores and treatment plant to be located at McKinnon Reserve.

While this is the most cost-effective and least risk location in terms of accessibility and water quantity and quality, we have listened to the community's concerns regarding use of the reserve and are actively investigating other locations.

As mentioned earlier in the newsletter, locating the plant and/or bore elsewhere will cost more and we will need to come back to the community on this once we confirm how much this additional cost is likely to be.

Point of use treatment devices

Some people mentioned point of use treatment (household filters or UV units) as a possible option for treating the water supply. These are not currently included in the NZDWS as an approved form of water treatment for a community water supply, and therefore they have not been included as an option. Rules have not been written as to how they may be compliant, and as such there is no way of proving compliance with the Health (Drinking Water Amendment) Act and/or the NZDWS.

www.waitaki.govt.nz



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