

# Upgrading the Ohau Water Supply to meet the Drinking Water Standards for New Zealand

Presentation to Ohau Village Residents and Ratepayers Association

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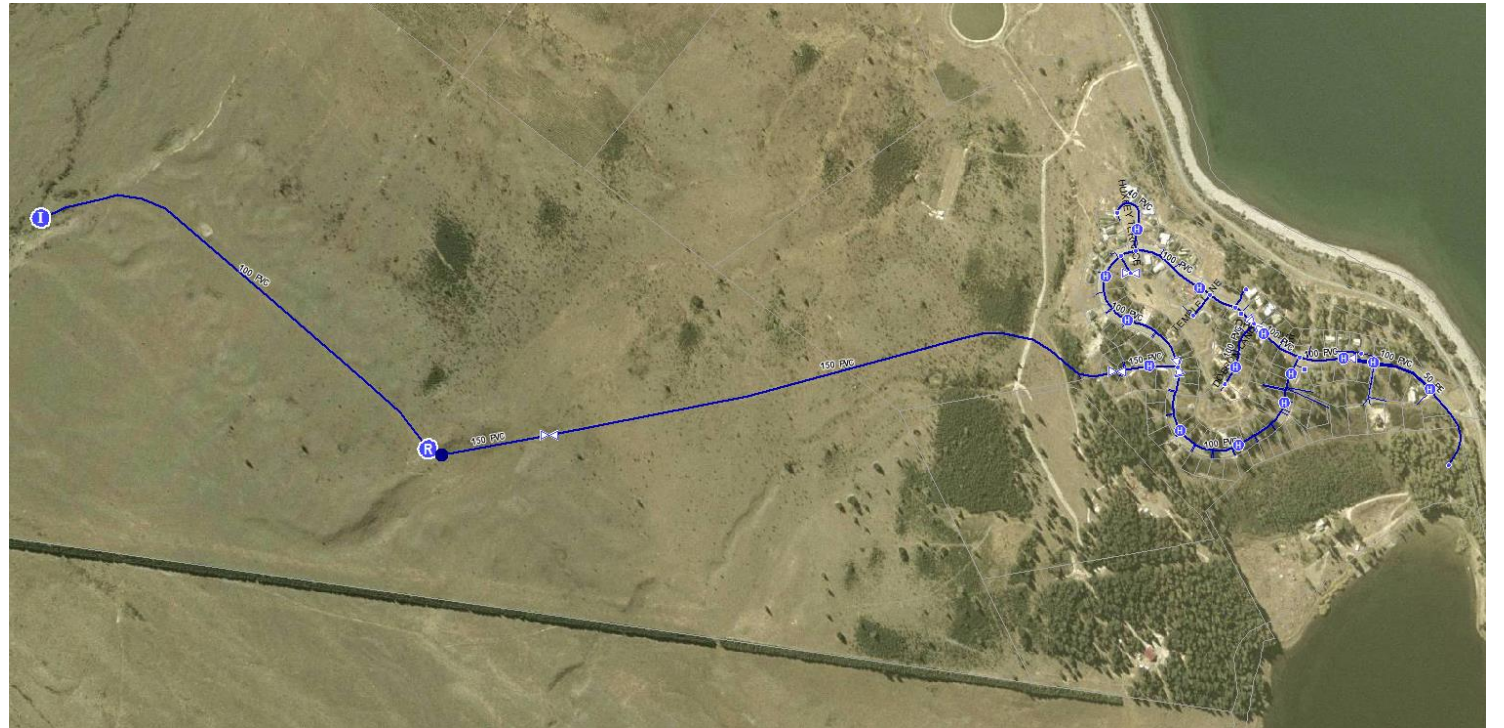
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# Why are we here?

- In the past, Drinking Water Standards were voluntary
- Health (Drinking Water) Amendment Act 2007 requires water suppliers to take all practicable steps to meet the Drinking Water Standards 2005 (Revised 2008), and says when compliance is required based on population
- Official population for Ohau Alpine Village = 120
- Compliance is required by 1 July 2015
- Ohau water supply does not currently meet DWS
- Council must now take all practicable steps to comply

# Current system

- Water intake from tributary to Freehold creek
- Gravity to reservoirs
- Gravity to town
- No treatment



# Concepts Considered

- Connect to a compliant supply
- Treat water from Freehold Creek (existing source)
- Treat water from Lake Ohau
- Treat water from a bore

# Connect to a compliant supply

- Has worked well in Waihemo and Oamaru
- No nearby supply – compliant or otherwise
- This concept is not considered further

# Treat water from Freehold Creek

- We have an existing consent to take the water – this expires in 2035
- Sufficient water quantity
- Moderate treatment required
- This concept is considered further

# Treat water from Lake Ohau

- A new consent would be required
- An inlet structure would be required on the lake foreshore
- There's plenty of water!
- High level of treatment – likely membrane filtration required
- This concept is not considered further

# Treat water from a bore

- A suitable aquifer has been identified
- A new consent would be required
- Sufficient volume likely
- Level of treatment would be low to moderate
- This concept is considered further



# Options considered further

- Treat water from Freehold Creek
- Treat water from a bore

# Identified Pros and Cons – Treat water from Freehold Creek

## Pros

- Existing source is known: consent, volume, quality
- Simple treatment train (filter + UV)

## Cons

- Must have landowner approval (2 landowners between intake and first consumer) – initial construction and on-going operation
- Must install full treatment train as it is a surface water
- Cost estimate around \$150k

# Identified Pros and Cons – Treat water from a bore

## Pros

- Simple treatment train (filter + UV)
- It may be possible to install less treatment (UV only) if the bore can be shown to be 'secure'
- Can be located on Council land – no issues with construction or operations

## Cons

- Ground water quality and quantity are unknown
- Cost estimate around \$150-200k depending on treatment required

# Other issues to be considered

- Chlorine – no intention to add chlorine unless requested by consumers or directed to by MoH
- Fluoride – no intention to add fluoride unless requested by consumers or directed to by MoH. Specifically excluded from the DWS
- Security of power supply – Council is currently investigating options for a mobile generator, able to be moved to various sites
- Noise and visual effects
- On demand vs restricted supply...

# Discussion/Questions