

**Wanaka Community Board
16 December 2015**

Report for Agenda Item: 5

Department: Infrastructure and Property

Wanaka Water Safety Plan

Purpose

The purpose of this report is to seek endorsement of the Wanaka Water Safety Plan (WSP) prior to submitting it to Public Health South.

Recommendation

That the Wanaka Community Board:

1. **Note** the contents of this report; and
2. **Authorise** Council to submit the Wanaka Water Safety Plan to Public Health South.

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Consents

2/12/2015

Reviewed and Authorised by:



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3/12/2015

Background

- 1 Historically, management of water supplies relied on monitoring the quality of the water that was produced and supplied and then comparing the results against the Drinking Water Standards for New Zealand (DWSNZ) for compliance. Whilst monitoring will still play an important part in public health management, WSPs are being introduced to reduce the likelihood and consequence of:
 - Contaminants entering the supply in the first place; or
 - Contaminants being reintroduced; or
 - Contaminants escaping the barriers designed to reduce them.

This WSP sets out the plan by which Council intends to meet the requirements of the Health (Drinking Water) Amendment Act 2007 (HDWAA) for the Wanaka Water Supply.

- 2 The first WSP was required to be submitted to Public Health South by 1 July 2012. This was submitted and approved by Public Health South in 2010. A 5-yearly review (due August 2015) of the WSP is required as per the HDWAA.

Comment

- 3 Each element (source, treatment and distribution) of the water supply is exposed to risk events of varying likelihood and consequence. In establishing a management plan, the level of risk to public health within each supply needs to be understood, quantified and managed. All risks have been assessed against the criteria of public health impact.
- 4 The extreme and high priority risks have been identified in the WSP. A preventative measure has been identified to reduce the likelihood of each event and an action to reduce its consequence. Actions are scheduled for implementation within the WSP.
- 5 The water is abstracted from Lake Wanaka and is chlorinated but there are insufficient barriers to contamination. The high priority risks and proposed actions are:

Process and Event	Action
Source water experiences algal bloom	Wanaka Yacht Club borefield stage 1: This will potentially reduce algae ingestion into reticulation however the two surface water intakes will remain. The new intake will include UV treatment.
Treatment plant cannot produce water of satisfactory quality	Consider routine sampling. Investigate lamella plates and a small amount chlorine dosing or a coagulant to settle out the algae.
Source water is contaminated (the Lake)	Wanaka Yacht Club borefield stage 1. The two surface water intakes will remain. The borefield adds more resilience to the supply.
Not enough water in post-treatment storage to meet demand	Upgrade capacity of the supply. A 1100m ³ reservoir to be placed adjacent to the existing Western Reservoir.
Development, or re-suspension, of sediment within tank or reservoir	Cleaning reservoirs is not on the programmed maintenance schedule. Reservoirs are currently cleaned on a case by case basis. Investigate need for cleaning reservoirs and if it should be on the programmed maintenance schedule.
Introduction of contamination by pressure fluctuations	Carry out water modelling to identify potential problem pressure areas. A water pressure field survey is planned from December 2015. This information will feed in to re-building the water models.
	Leak detection programme.
Introduction of contaminating material into the distribution system	Sunrise Bay pond is fed by the reticulation. This has been identified as a risk. Turn off and cap.

Process and Event	Action
No, inadequate, faulty, or incorrectly installed backflow prevention device	Identify backflow risk in the District.
	Talk to the Building inspectors about process for checking commercial premises for backflow testing (WOF).
Incorrect water quality data used for supply management	Build lab results database that will house all water quality data.

Options

- 6 This report identifies and assesses the following reasonably practicable options for assessing the matter as required by section 77 of the Local Government Act 2002:

7 Option 1 Do Nothing – Status Quo

Advantages:

- 8 No investment required from Council.

Disadvantages:

- 9 The HDWAA will not be met. Council will lose credibility with the Ministry of Health and Public Health South.

10 Option 2 Accept the Water Safety Plan

Advantages:

- 11 Meets requirements of HDWAA.

Disadvantages:

- 12 Will require a commitment from Council to address the risks.

- 13 **Option 2** above is recommended.

Significance and Engagement

This matter is of low significance, as determined by reference to the Council's Significance and Engagement Policy because it is required by law.

Risk

- 14 This matter relates to the strategic risk SR1 "Current and future development needs of the community (including environmental protection)", as documented in the Council's risk register. As the community grows, the water supply will need to be upgraded.

- 15 The recommended option (Option 2) considered above mitigates the risk by:

Treating the risk - putting measures in place which directly impact the risk.

Financial Implications

16 There are no financial implications associated with submitting the WSP as the report has been done in-house.

Council Policies, Strategies and Bylaws

17 The following Council policies, strategies and bylaws were considered:

- Growth Management Strategy (2007) - Infrastructure is provided in a way that supports high quality development located in the right places while adhering to the principles of sustainable development and ensuring that the environmental qualities of the district are protected.
- 3 Waters Strategy (2011) - We will manage risk and be able to adapt to a variety of future scenarios for climate change and population growth.

18 The recommended option is consistent with the principles set out in the named policy/policies.

19 This matter is partially included in the 10-Year Plan/Annual Plan.

- The 2015 10-Year Plan includes budget for the installation of the Wanaka Yacht Club borefield with \$318,539 in 2015/16.
- The 2015 10-Year Plan includes budget for the installation of a second Western Reservoir with \$1,586,422 in 2015/16.
- If the water supply requires an upgrade to become protozoal compliant or an alternative source developed in the future, budget will need to be sought.

Local Government Act 2002 Purpose Provisions

20 The recommended option:

- Will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses by reducing the health risks associated with the Wanaka Airport water supply;
- Will require additional funding in the 10-Year Plan and Annual Plan;
- Is consistent with the Council's plans and policies; and
- Would not alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or transfer the ownership or control of a strategic asset to or from the Council.

Consultation: Community Views and Preferences

21 The persons who are affected by or interested in this matter are residents/ratepayers of the Wanaka community, Public Health South and the Ministry of Health.

22 The Council held a risk workshop with Veolia and key Council engineering staff on 8 September 2015.

23 The Wanaka Community Board was consulted at a workshop on 2 December 2015.

24 Public Health South has been informed of progress.

Legal Considerations and Statutory Responsibilities

25 Relevant legislation includes:

- Health (Drinking Water) Amendment Act 2007

26 The Act requires all drinking-water suppliers providing drinking-water to over 500 people to develop and implement a WSP. Specifically, the purpose of this part of the Act is to protect the health and safety of people and communities by promoting adequate supplies of safe and wholesome drinking-water from all drinking-water supplies.

27 Section 69Z of the Health (Drinking Water) Amendment Act 2007 requires that:

(1) Every drinking-water supplier must, on or before the date on which this section begins to apply to that drinking-water supplier, prepare in writing either or both of the following, whichever is applicable:

(a) a water safety plan in relation to that drinking-water supplier's drinking-water supply:

(b) in the case of a drinking-water supplier who is a water carrier, a water safety plan in relation to that water carrier's method of transporting raw water or drinking water.

Attachments

A Wanaka Water Safety Plan