



## **Drinking Water Safety Planning Guidance**

**For Drinking Water  
Carrier Services**

## **Te Whakatauākī a Taumata Arowai**

**Ko te wai ahau  
Ko ahau te wai  
He whakaaturanga tātou nō te wai  
Ko te ora te wai ko te ora o te tangata  
He taonga te wai me tiaki  
Ko wai tātou  
Ko wai tātou**

**I am water, water is me  
We are reflections of our water  
The health of water is the health of the people  
Water is a treasure that must be protected  
We are water  
Water is us**

# Contents

<b>Introduction</b>	<b>4</b>
<b>Before you start</b>	<b>5</b>
<b>Start completing your plan</b>	<b>5</b>
<b>Question 1:</b> Giving effect to Te Mana o te Wai	<b>6</b>
<b>Question 2:</b> Drinking water safety planning team	<b>6</b>
<b>Question 3:</b> Leadership and capability	<b>6</b>
<b>Question 4:</b> Flow diagram	<b>7</b>
<b>Question 5:</b> Understanding your water carrying operation	<b>7</b>
<b>Question 6:</b> Hazard and Risk identification and controls	<b>9</b>
<b>Question 7:</b> Monitoring, verification and record keeping	<b>10</b>
<b>Question 8:</b> Incident response	<b>11</b>
<b>Question 9:</b> Review	<b>11</b>
<b>Appendix 1:</b> WC Water Carrier Service Rules	<b>12</b>
<b>Appendix 2:</b> Example flow diagram	<b>13</b>

# ▲ Introduction

## Kia ora and welcome!

All New Zealanders should have access to safe, reliable drinking water. To help ensure this vision is achieved, owners of drinking water supplies must have a proper appreciation of drinking water-related risks and options to manage, control or eliminate them. This is the essence of drinking water safety planning.

The purpose of this template is to assist **water carriers** to identify and manage the risks that may affect the safety, compliance, or sufficiency of the drinking water they supply.

There are many risk assessment methodologies, and water carriers can use another risk assessment methodology if they prefer.

## What is Te Mana o te Wai and why does it matter?

Te Mana o te Wai refers to the wellbeing of water and the role all New Zealanders have in maintaining the abundance, safety, and care of the water. This is important to all of us because healthy water is essential to any thriving community.

Te Mana o te Wai guides us to practice good stewardship and consider other users, including those in the future, and the needs of our ecosystems as we manage access, storage, and use of our water supplies.

Owners of drinking water supplies must give effect to Te Mana o te Wai to the extent that it relates to their legal duties, including in their DWSP preparation. Taumata Arowai understands that some drinking water suppliers will be unfamiliar with applying Te Mana o te Wai to the management of their supplies. The most important thing to demonstrate in this section of a drinking water safety plan is that you have begun considering what Te Mana o te Wai means to you and that you're committed to enhancing your understanding and application of the concept over time.

Taumata Arowai has developed some guidance on Te Mana o te Wai [here](#). Other helpful resources include the Kāhui Wai Māori report to the Hon Minister David Parker, available [here](#), and the Ministry for the Environment's Youtube video 'Te Mana o te Wai: Introduction and overview', which is available [here](#).

## Your legal obligations

There are a range of duties under the [Water Services Act 2021](#) (the Act) that owners of drinking water supplies must comply with. We recommend you visit the [Taumata Arowai](#) website for further guidance.

In this context, drinking water supply owners must develop and implement a DWSP for each water supply to comply with [s30](#) of the Act.

This template combines the requirements of s31 of the Act.

Please see **Appendix 1** for the relevant Drinking Water Quality Assurance Rules.

## ▲ Before you start

### Instructions

1. Ensure you have a copy of the appropriate sections of the [Drinking Water Quality Assurance Rules](#) (Rules) on hand so you can cross-check where necessary.
2. Answer the questions in the template using this guidance.
3. Sign-off the Drinking Water Safety Plan to confirm that the water carrier details included in the plan are correct, and commit to undertaking any identified improvements to the operation.
4. Provide a copy of your Drinking Water Safety Plan to Taumata Arowai, either by submission via [Hinekōrako](#) on the Taumata Arowai website, email ([info@taumataarowai.govt.nz](mailto:info@taumataarowai.govt.nz)) or post (Level 2, 10 Brandon Street, PO Box 628, Wellington 6140, New Zealand).
5. Keep your Drinking Water Safety Plan in a central place that is easily accessible to you (and any others involved in managing the water carrying operation).

## ▲ Start completing your plan

### The Title Page

Fill in basic details of your water supply on the title page:

- **Name of water carrier owner:** the organisation or name(s) of individual(s) who has/have responsibility for the water carrying operation
- **Name of water carrier (if different to owner)**
- **Water supply name:** brief description of the water supply e.g. Main Street Water Depot
- **Unique identifier:** advised when you first registered the water carrier service
- **Emergency contact name:** who water supply users or Taumata Arowai should contact if an issue is identified with the water supply
- **Emergency mobile phone number**
- **Local authority areas covered**
- **Name of source:** name of the drinking water supply you source your drinking water from

## ▲ Question 1: How are you giving effect to Te Mana o te Wai?

As a drinking water supplier, you can embed Te Mana o te Wai by giving priority to the health and wellbeing of water, the wider environment and the community in the development of your water safety plans and source water risk management plans, and in policies, processes and procedures. Actions or activities that support Te Mana o te Wai will be different in different places. You need to think about what is appropriate for your supply in your region.

Taumata Arowai has developed some guidance on te Mana o te Wai [here](#). Other helpful resources include the Kāhui Wai Māori report to the Hon Minister David Parker, available [here](#), and the Ministry for the Environment's Youtube video 'Te Mana o te Wai: Introduction and overview', which is available [here](#).

## ▲ Question 2: Drinking water safety planning team

This plan should ideally be developed using a team of people with a range relevant of skills and knowledge to help ensure that the planning is thorough.

- List the people involved in the preparation of this plan. If you are the only person involved in the operation and have developed the plan alone, then simply state this.
- Record why team members have been selected to participate.
- Clearly record the responsibilities of each member of the team.

## ▲ Question 3: Leadership and capability

### 3.1 Leadership

Provide details of the key role and responsibilities of people involved in the operation, and management of your water carrier operation.

Consider if you have adequate staff with knowledge of the operation to step in if key people are unavailable for example, due to illness. If your operation is very small and you will not be able to operate if key people are unavailable, then note this should be noted in your plan.

Phone numbers are required so that key people can be contacted if problems arise.

### 3.2 Operator capability

You must ensure that staff, volunteers, or other personnel have the skills, training, and experience to operate the water carrier service and manage any issues which may arise. As a minimum your plan should consider:

- Provide the relevant qualifications, skills, training and experience required to operate your water carrier service.
- Whether additional training, specific to your water carrier service is required?
- What documented procedures are available to support staff to operate the water carrier service effectively?
- Who is available to assist you with any issues or incidents e.g. a suitably qualified person such as a water engineer.
- Whether you have capacity or a back-up plan if a key person is unavailable e.g., due to illness.

## ▲ Question 4: Flow diagram

Provide an accurate flow diagram or schematic of your water carrier operation, showing its components and how water moves or is transported through them. As a water carrier, you are a drinking water supplier responsible for the safety of the drinking water from the point of collection to the point of supply.

The schematic or flow diagram should:

- include all elements of the water carrier operation, including sources, tankers, and other equipment
- outline all steps and processes
- identify where key monitoring points are located.

An example flow diagram is provided in **Appendix 2**.

Provide photographs of your key plant and equipment including any vehicles, tanks, hoses, sampling taps, etc. Provide clear descriptions for each.

## ▲ Question 5: Understanding your water carrying operation

As a water carrier and a drinking water supplier, you should have a thorough understanding of all aspects of your operation. The sections below are designed to make you think about key aspects of your supply.

### 5.1 How do you know that the water you collect is safe and compliant?

All drinking water supplied by a water carrier must be safe and comply with the Drinking Water Standards. You must ensure you know how the water you collect is treated if you do not own the supply.

Processes must be in place to ensure that you will be notified as soon as possible in the event of incidents or issues.

As a minimum you should consider the following:

- Which supplies do you collect water from? What steps have you taken to ensure that the water from these supplies is generally safe and compliant?
- Are these supplies all used routinely or are some only used occasionally for example as a back-up or if you are in a particular area?
- Do you have agreements with the suppliers which specify conditions, for example around collection points, any restrictions on collections or delivery locations?
- How will the supplier make you aware of any issue which could affect the safety or compliance of the drinking water?
- Are there existing issues or challenges with any of your sources of drinking water?
- Are you aware of any previous incidents or events which had the potential to affect the quantity, safety, or compliance?
- How do you track collections and deliveries? (Records are covered in section 7 below.)

**Note:** if you use your own drinking water supply, this must be registered as a separate supply, comply with the relevant [Drinking Water Quality Assurance Rules](#) and have a dedicated drinking water safety plan. The drinking water from your supply must be safe and comply with the drinking water standards.

## 5.2 Chlorination

If you add any chlorine to the water to ensure that the FAC level is maintained throughout your operation, how is this managed? You should consider:

- How is the chlorine added?
- How is the FAC monitored?
- Are there documented procedures?
- Are staff trained in this task?

**Note:** if you use your own supply then treatment should be covered as part of the drinking water safety plan for that supply. This section only relates to chlorination of drinking water which is being transported by water carrier.

## 5.3 Description of your vehicles and/or equipment

Provide a detailed description of the vehicles and equipment used.

If necessary, insert a separate table for each vehicle.

**Note:** you must ensure that all tanks and equipment used for storing, transporting, loading, or unloading water are used for drinking water only.

## 5.4 Cleaning and maintaining vehicles and equipment

What procedures do you have in place to ensure that your vehicles and equipment are kept in good working order, are cleaned regularly, and will not contaminate the drinking water? Are vehicles and/or equipment used for any purpose other than the supply of drinking water? Vehicles and equipment should be used only for the supply of drinking water.

- Are vehicles and equipment regularly inspected for damage or wear?
- Are vehicles and equipment subject to regular maintenance?
- Are openings and connections suitably sealed to protect against contamination?
- How do you ensure that materials used to maintain vehicles will not contaminate the water?
- How do you ensure that vehicles and equipment are cleaned and disinfected regularly and effectively?
- Do you have documented procedures?
- Do you meet any minimum requirements detailed in the [Drinking Water Quality Assurance Rules](#)?

## 5.5 How do you protect drinking water during deliveries?

How do you manage deliveries to ensure that they are done in a manner which protects drinking water from contamination and allows traceability? As a minimum this should meet the requirements of the [Drinking Water Quality Assurance Rules](#).

You should consider:

- How do you prevent contamination through backflow prevention?
- What training have staff been given?
- Do you have any documented procedures?
- What information do you provide to consumers?



## ▲ Question 6: Hazard and Risk identification and controls

Most of the time, your drinking water supply will provide safe drinking water. But sometimes the water supply will be compromised, and people can get sick from unclean water. The best way to make sure there is less chance of people becoming sick is to consider what can go wrong and adopt management practices that will prevent it going wrong or manage the impact if it does.

### 6.1 What are the risks to your water supply system?

#### Step 1

Risks are those things or events that may result in contamination of your drinking water, such as unhygienic storage or practices, staff working whilst unwell, or a carriage process failing.

Even if these events have not been recorded as causing issues in the past, it is important to identify them as a possibility here. Some of the major contamination events that have caused illness (and sometimes death) were from events that had not been recorded as happening before.

#### Step 2

Rank the risks according to their public health impact. For example, issues that affect the taste of the water, but don't cause illness are a lower risk. However, having bacterial contamination in your source water is a much higher risk. This is the current risk based on the current equipment and how you manage your water supply.

### 6.2 How are the risks controlled and monitored?

#### Step 3

Consider whether you have ways to manage each risk, either to eliminate it, or to minimise the impact of the risk. These management measures are called controls. Examples of controls include regular inspection and maintenance, or water treatment. Record what is currently being done, planned improvements are in Step 5.

#### Step 4

Describe how you know a control is working. This may be by inspecting visually, monitoring the operation of the treatment process, or taking samples of the drinking water regularly to test the quality. It is important to record who is responsible for planned improvements occurring, when they will do it and how they will keep records of their findings - this is done in Question 7 of the template. Record what is currently being done, planned improvements are in Step 5 below.

### 6.3 Can you improve your water carrying operations?

#### Step 5

What can you do to improve the drinking water system or your management of the system to further protect from the risks you have identified? Start with documenting any shortcomings and then identify the improvement that could be made. For example, if you do not have a regular inspection of the equipment, or the team does not have a member with training on the equipment, an improvement may be starting a weekly check of the equipment or to get the manufacturer to provide a team member with training.

#### Step 6

Prioritise your improvements and give them a timeframe you will be able to achieve.

## ▲ Question 7: Monitoring, verification and record keeping

### 7.1 Monitoring

The purpose of operational monitoring is to check that your operation is working as expected and to detect when things start to change. When undertaking monitoring, water carriers need to know what they are monitoring, how monitoring must be done and what the results mean. There will be results which confirm that the process is working as expected (within target levels).

Other results may indicate that a process is drifting and will require action such as more frequent monitoring, process adjustment or escalation to senior staff (action level). Critical level results indicate that drinking water may be unsafe or non-compliant and a response will be needed to address any public health risks.

You will have to carefully consider where monitoring thresholds are set and ensure that operators with monitoring duties fully understand what is required.

When developing your monitoring plan, you must consider the following:

- Are all key points being monitored appropriately?
- Have target, action and critical levels been set at appropriate monitoring points?
- What procedures are in place to ensure that monitoring equipment is giving accurate readings?
- How frequently will monitoring need to be undertaken?
- Are there documented procedures for operators who undertake monitoring?
- How and when will monitoring equipment be calibrated and subject to verification checks?

### 7.2 How do you know your processes are working?

Checking to ensure that your processes are working is known as verification. You should consider the following:

- How do you know you can rely on your monitoring results?
- Has monitoring equipment had verification checks and calibration at suitable intervals?
- Is laboratory testing of samples being undertaken regularly enough and for the correct contaminants?

Where a verification check fails, this means that the monitoring before the test cannot be relied upon and that drinking water already produced may not be of the quality expected.

### 7.3 Record keeping

You must keep and maintain records regarding your supply, its operation, and its compliance with the legislation.

You are required to make your records available to Taumata Arowai on request.

When deciding what records to keep and maintain you should consider the following:

- Do your records provide adequate information about the water carrying operation?
- Do your records include monitoring results including verification checks and calibrations?
- Do your records show how you have responded appropriately to any problems?
- Do your records demonstrate that you and any staff have appropriate skills, knowledge, and experience?

## ▲ Question 8: Incident response

### 8.1 What else could go wrong?

How well prepared are you if something else goes wrong? Situations could include:

- Loss of access to a source/supply.
- Notification that drinking water you have collected and/or delivered may be unsafe or non-compliant.
- Natural disaster.
- Vandalism or deliberate tampering with equipment.
- Breakdown or damage to vehicle.

### 8.2 Responding to an incident

You must take action if the drinking water you deliver does not comply with the Drinking Water Standards or is likely to be unsafe. This includes notifying Taumata Arowai about the problem. You must plan how you will respond to events and incidents.

You should consider:

- Do the appropriate people understand the notification requirements under the Act?
- Are appropriate people able to access the Taumata Arowai website and Hinekōrako if notification is required?
- Have you planned what you will do if water is unsafe or unavailable?
- Do you have a suitable alternate supply you can access?
- How will you advise affected consumers if there is an issue?
- Have you prepared messaging in advance?
- What other key stakeholders may need to be advised?

## ▲ Question 9: Review

You should review this plan on a regular basis and when there are any changes or incidents which affect your understanding of the risks associated with your supply.

This could include:

- Changes in leadership or other key staff.
- Changes in processes or equipment.
- Changes to the source.
- An incident or event.
- Sample results which indicate a change in the source water or non-compliance.

Detail the minimum frequency of review and any triggers which will lead to a review of your plan.

# Appendix 1: WC Water Carrier Service Rules

Rule Number	Requirement	Assurance/Monitoring	Compliance period
<b>WC.1</b>	All water to be transported must be sourced from a registered drinking water supply where the water is: <ol style="list-style-type: none"> <li>safe to drink; and</li> <li>complies with the Drinking Water Standards; and</li> <li>complies with the rules relevant to the supply.</li> </ol>	Assurance	1 Year
<b>WC.2</b>	The water carrier must only take water from a point in a distribution system prescribed by the drinking water supplier.	Assurance	1 Year
<b>WC.3</b>	If water is sourced from a supply that provides water specifically for water carrier services, that supply must be registered and comply with the rules for Water Carrier Supplies.	Assurance	1 Year
<b>WC.4</b>	The operator of any vehicle used to transport water must ensure all tanks, and the equipment used for loading or unloading water, are only used for drinking water.	Assurance	1 Year
<b>WC.5</b>	The operator of any vehicle used to transport water must ensure all tanks, and the equipment used for loading and unloading water, are made from material that light cannot pass through, are kept clean and clear of any possible contaminants at all times, with all openings and connections sealed to protect them from possible contamination. The drinking water must be protected from contamination at all times during its loading, transit and delivery.	Assurance	1 Year
<b>WC.6</b>	If tanks and the equipment and fittings used for loading and unloading water are not used for the transport of drinking water for a period of 30 or more days, then before next being used to transport drinking water: <ol style="list-style-type: none"> <li>the tank must be disinfected by filling with drinking water containing at least 5 mg/L FAC for not less than 30 minutes before discharging safely to waste; and</li> <li>equipment and fittings should be washed in water containing 5mg/L FAC.</li> </ol>	Assurance	1 Year
<b>WC.7</b>	The water carrier must ensure there is backflow prevention or an adequate air gap in place when discharging drinking water from their tank.	Assurance	1 Year
<b>WC.8</b>	When drinking water is delivered, a written statement must be supplied to the customer/consumer stating the: <ol style="list-style-type: none"> <li>Fill date and time.</li> <li>Registered drinking water supply from which the tanker was loaded.</li> <li>Delivery date, time, location and volume of water delivered.</li> <li>Name and registration number of water carrier.</li> <li>Name and signature of delivery person.</li> </ol> <p>The water carrier needs to keep records of this information for a period of 3 years.</p>	Assurance	1 Year

## Appendix 2: Example flow diagram

**Please note:** This is just an example of how you could draw your own water source.

