

Grey District Council Water Supply Bylaw

This bylaw was first adopted by the Grey District Council on 9 June 2008.

The bylaw was amended on 13 July 2020 following consideration of submissions received as part of the Special Consultative procedure.

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GREY DISTRICT COUNCIL WATER SUPPLY BYLAW

1. FOREWORD

The Bylaw is based on the NZS 9201 series of model bylaws covering various matters under local authority jurisdiction. Local authorities are empowered under the Local Government Act 2002 to make bylaws.

This Bylaw supersedes NZS 9201: Part 7:1994 *Water supply*.

The revision has been necessary to give effect to legislative changes such as the introduction of the Local Government Act 2002 and to reflect changes in industry practice.

Reference should be made to The Grey District Council Introductory Bylaw for definitions and clauses not included in this Bylaw.

2. TITLE

A Bylaw of the Grey District Council by way of Special Order pursuant to the provision of the Local Government Act 2002 and all other Acts, powers and authorities enabling it in that behalf to make a Bylaw to be known as the Grey District Council Water Supply Bylaw.

3. COMMENCEMENT

This Bylaw shall come into force on the 13 day of July 2020

4. REPEAL

As from the day this Bylaw comes into force, any previous bylaw or parts of any bylaw and their amendments in force in the Grey District (including the former local authorities that now comprise the Grey District Council) shall be repealed.

5. APPLICATION OF BYLAW

This Bylaw shall apply to the Grey District Council.

6. SCOPE

This Bylaw is made under the authority of the Local Government Act 2002 for the supply of water to its customers by the Water Supply Authority (WSA). The supply and sale of water by the WSA is subject to all requirements listed in: Schedule 1: Relevant Legislation, References, Policy Documents and Standards

7. INTERPRETATION

When interpreting this Bylaw use the definitions set out in section 8 unless the context requires otherwise. If you see a reference to a repealed enactment read that as a reference to its replacement. For the purpose of this Bylaw, the word 'shall' refer to practices that are mandatory for compliance with this Bylaw, while the word 'should' refer to practices that are advised or recommended.

8. DEFINITIONS

For the purpose of this Bylaw, unless inconsistent with the context, the following definitions apply:

Approved

Approved in writing by the WSA, either by resolution of the Council or by any authorised officer of the WSA

Backflow	The unplanned reversal of flow of water or mixtures of water and contaminants into the water supply system
Council	The Grey District Council or any officer authorised to exercise the authority of the Council
Customer	A person who uses, or has obtained the right to use or direct the manner of use of, water supplied by the WSA
Detector check valve	A check (non-return) valve which has a positive closing pressure and a metered bypass to measure flows typically associated with leakage or unauthorised use on a dedicated fire supply
Extraordinary supply	A category of on demand supply including all purposes for which water is supplied other than ordinary supply and which may be subject to specific approval, conditions and limitations
Fees and charges	The list of items, terms, and prices for services associated with the supply of water as adopted by the Council in accordance with the LGA 2002 and the Local Government (Rating) Act 2002
Level of service	The measurable performance standards on which the WSA undertakes to supply water to its customers
On demand supply	A supply which is available on demand directly from the point of supply subject to the agreed level of service
Ordinary supply	A category of on demand supply used solely for domestic purposes in urban, residential, township, environmental zones as defined in the Council's District Plan and where Council provided water supply schemes exist.
Person	A natural person, corporation sole or a body of persons whether corporate or otherwise
Point of supply	The point on the water service pipe leading from the water main to the premises, which marks the boundary of responsibility between the customer and the WSA, irrespective of property boundaries
Potable	As defined in section 69G of the Health Act 1956 and section 69G of The Health (Drinking Water) Amendment Act 2007
Premises	Premises include the following: <ul style="list-style-type: none"> a) property or allotment which is held under a separate certificate of title or for which a separate certificate of title may be issued and in respect to which a building consent has been or may be issued; or b) a building or part of a building that has been defined as an individual unit by a cross-lease, unit title or company lease and for which a certificate of title is available; or

- c) land held in public ownership (e.g. reserve) for a particular purpose

Public notice	As defined in the Local Government Act 2002
Ranger	A person responsible for the management of a WSA controlled catchment area or water reserve
Restricted flow supply	A type of water supply connection where a small flow is supplied through a flow control device, and storage is provided by the customer to cater for the customer's demand fluctuations
Restrictor	A flow control device fitted to the service pipe to limit the flow rate of water to a customer's premises
Road Controlling Authority	Is defined in the Land Transport Act 2003 and includes a territorial authority and the New Zealand Transport Agency.
Rural water supply area	An area formally designated by a WSA as an area serviced by a reticulated water supply system that is intended to supply water for specified purposes via restricted flow supplies and/or on demand supplies but not necessarily with a firefighting capability
Service pipe	The section of water pipe between a water main and the point of supply
Service valve (Toby)	The valve at the customer end of the service pipe
Storage tank	Any tank having a free water surface
Supply pipe	The section of pipe between the point of supply and the customer's premises through which water is conveyed to the premises
Urban water supply area	An area formally designated by a WSA as an area serviced by a reticulated water supply system with a firefighting capability, that is intended to supply water to customers via on demand supplies
Water supply authority (WSA)	The operational unit of the Council responsible for the supply of water, including its authorised agents
Water supply system	All those components of the network between the point of abstraction from the natural environment and the point of supply. This includes but is not limited to: wells, infiltration galleries, intake structures, open raw water storage ponds/lakes, falling mains, treatment plants, treated water reservoirs, trunk mains, service mains, rider mains, pump stations and pumps, valves, hydrants, scour lines, service pipes, boundary assemblies, meters, backflow prevention devices and tobies
Water unit	The basis of measurement for a restricted flow supply and equal to a volume of 365 m ³ delivered at the rate of 1 m ³ per day

9. PROTECTION OF WATER SUPPLY

9.1 Water supply system

9.1.1 Access to system

No person other than the WSA and its authorised agents shall have access to any part of the water supply system, except to connect to the point of supply, subject to 10.1, and to operate the service valve.

9.1.2 No person to connect to, or interfere with a water supply system

Except as set out in 9.1.1, 9.1.3 and 9.1.4, no person shall make any connection to, or otherwise interfere with, any part of the water supply system.

9.1.3 Fire hydrants

Only the attending Fire Service/s shall gain access to and draw water from fire hydrants for the purpose of fighting fires, training, and testing.

NOTE – Use of the fire hydrants by untrained personnel can result in damage to the water supply system.

9.1.4 Other uses

The right to gain access to, and draw water from the water supply for uses other than firefighting (for example, flow testing or pipe flushing) shall be restricted to:

- a) The WSA or its agents;
- b) Permit holders, being those persons who after having submitted an application to the WSA are subsequently approved to draw water from fire hydrants or tanker filling points. Such permits shall be valid only so long as the permit holder complies with the conditions endorsed on the permit. Without prejudice to other remedies available, the WSA may remove and hold any equipment used by an offender to gain access to, or draw water from a fire hydrant, and assess and recover the value of water drawn without authorisation and any other associated costs.

9.1.5 Working around buried services

The WSA shall keep accurate permanent records ('as-builts') of the location of its buried services. This information shall be available for inspection at no cost to users. Charges may be levied to cover the costs of providing copies of this information.

Any person proposing to carry out excavation work shall view the as-built information to establish whether or not WSA services are located in the vicinity. At least five working days' notice in writing shall be given to the WSA of an intention to excavate in the vicinity of its services. Where appropriate the WSA shall mark out to within ± 0.5 m on the ground the location of its services and nominate in writing any restrictions on the work it considers necessary to protect its services. The WSA may charge for this service.

When excavating and working around buried services due care shall be taken to ensure the services are not damaged, and that bedding and backfill are reinstated in accordance with the appropriate WSA specification.

Any damage which occurs to a WSA service shall be reported to the WSA immediately. The person causing the damage shall reimburse the WSA with all costs associated with repairing the damaged service, and any other costs the WSA incurs as a result of the incident.

NOTE – Excavation within roadways is also subject to the permit process of the appropriate road controlling authority.

9.2 Protection of source water

9.2.1 Catchment classes

Surface water and groundwater catchment areas from which untreated water is drawn for the purposes of water supply may be designated as:

- a) Controlled;
- b) Restricted; or
- c) Open.

9.2.2 Controlled catchments

The following conditions apply:

a) Entry

Catchment areas which are designated as controlled, or any area held by the WSA as a water reserve, shall not be entered by any person except those specifically authorised or permitted in writing by the WSA. Within such areas unless provided for by the WSA no person shall:

- i. Camp
- ii. Take or allow to stray any livestock
- iii. Bathe or wash anything
- iv. Deposit any dirt, rubbish, or foul material of any kind
- v. Defecate

b) Permits

Entry permits shall forbid, regulate or control the following activities:

- i. Permits to Hunting, trapping, shooting, or fishing
- ii. Lighting or maintaining any fire
- iii. Taking of any dog or other animal
- iv. Damaging or destroying any trees, shrubs, or other existing cover, or interference with any property
- ii. Carrying of any firearm or weapon of any kind, any trap or any fishing gear which may be used for the hunting or catching of birds, fish or animals
- i. Use of any pesticide or toxic substance for any purpose whatsoever.
- iii. A person may be required to present a medical clearance before an entry permit will be issued.

c) be presented

Unless the WSA permits:

- i. No person to whom any permit has been issued shall enter or leave any controlled catchment area or land held by the WSA as a water reserve without presenting such a permit for inspection by the WSA ranger and notifying the ranger of their intention of entering or leaving such an area as the case may be
- ii. Every person on any controlled catchment area or land held by the local authority as a water reserve shall upon demand produce any such permit for inspection by the ranger
- iii. No permit issued shall be capable of being transferred
- iv. The WSA may at any time, by notice in writing delivered to the holder, revoke or suspend any such permit for such time as shall be stated in such a notice.

d) Interference and obstruction

In any controlled catchment area or any land held by the WSA as a water reserve:

- i. Every person shall upon the request of the ranger or other officer of the WSA immediately leave the controlled catchment area or land held by the WSA as a water reserve, but shall nevertheless be liable also to be prosecuted for the breach of any of the provisions of this Bylaw, and the failure so to leave shall constitute a further offence
- ii. No person shall obstruct or hinder any duly appointed officer of the WSA in the exercise of any powers vested in that officer under the provisions of this Bylaw.

9.2.3 **Restricted catchments**

Catchment areas which are designated as restricted shall allow for certain activities but shall be as for controlled catchments for other activities. Those activities may include unrestricted entry for:

- a) Tramping;
- b) Hunting;
- c) Trapping;
- d) Shooting;
- e) Fishing.

9.2.4 **Open catchments**

In open catchment areas whether designated or not, there will generally be no restriction on activities other than any provisions of the regional or district plan and the National Environmental Standard.

9.2.5 **Spillages and adverse events**

In the event of a spillage, or any event which may compromise the water supply, the person responsible for the event shall advise the WSA with due urgency. This requirement shall be in addition to those other notification procedures which are required for other authorities.

10. CONDITIONS OF SUPPLY

10.1 Application for supply

10.1.1 Initial application

Every application for a supply of water shall be made in writing on the standard WSA form accompanied by the prescribed charges. The applicant shall provide all the details required by the WSA.

On receipt of an application the WSA shall, after consideration of the matters in 10.4 and 10.5, either:

- a) Approve the application and inform the applicant of the type of supply, the level of service, the size of the connection and any particular conditions applicable; or
- b) Refuse the application and notify the applicant of the decision giving the reasons for refusal.

For the agreed level of service to the applicant, the WSA should determine the sizes of all pipes, fittings and any other equipment, up to the point of supply. The WSA shall supply and install the service pipe up to the point of supply at the applicant's cost or may allow the supply and installation of the service pipe to be carried out by approved contractors.

The applicant shall have the authority to act on behalf of the owner of the premises for which the supply is sought and shall produce written evidence of this if required.

An approved application for supply which has not been actioned within six months of the date of application will lapse unless a time extension has been approved. Any refund of fees and charges shall be at the discretion of the WSA.

10.1.2 Change of use

Where a customer seeks a change in the level of service or end use of water supplied to premises, and/or the supply changes from an ordinary to an extraordinary type (see 10.4) or vice versa, a new application for supply shall be submitted by the customer.

10.1.3 Prescribed charges

Charges applicable at the time of connection may include:

- a) Payment to the WSA for the cost of the physical works required to provide the connection;
- b) A development contribution charge determined in accordance with the Local Government Act 2002;
- c) A financial contribution charge determined in accordance with the Resource Management Act 1991.

10.2 Point of supply

10.2.1 Responsibility for maintenance

The WSA shall own and maintain the water service pipe and fittings from the water main up to the point of supply. The customer shall own and maintain the water service pipe beyond the point of supply.

10.2.2 Single ownership

For individual customers the point of supply shall be located as shown in **figure 1** or as close as possible where fences, walls, or other permanent structures make it difficult to locate it

at the required position to within plus or minus 500 millimetres. Other positions shall require specific approval.

For each individual customer there shall be only one point of supply, unless otherwise approved.

The typical layout at a point of supply is shown in **figure 2**

The WSA gives no guarantee of the serviceability of the valve located on the service pipe. Where there is no customer stopcock, or where maintenance is required between the service valve and the customer stopcock, the customer may use the service valve to isolate the supply. However, the WSA reserves the right to charge for maintenance of this valve if damaged by such customer use.

Figure 1 – Point of supply location – Individual customers

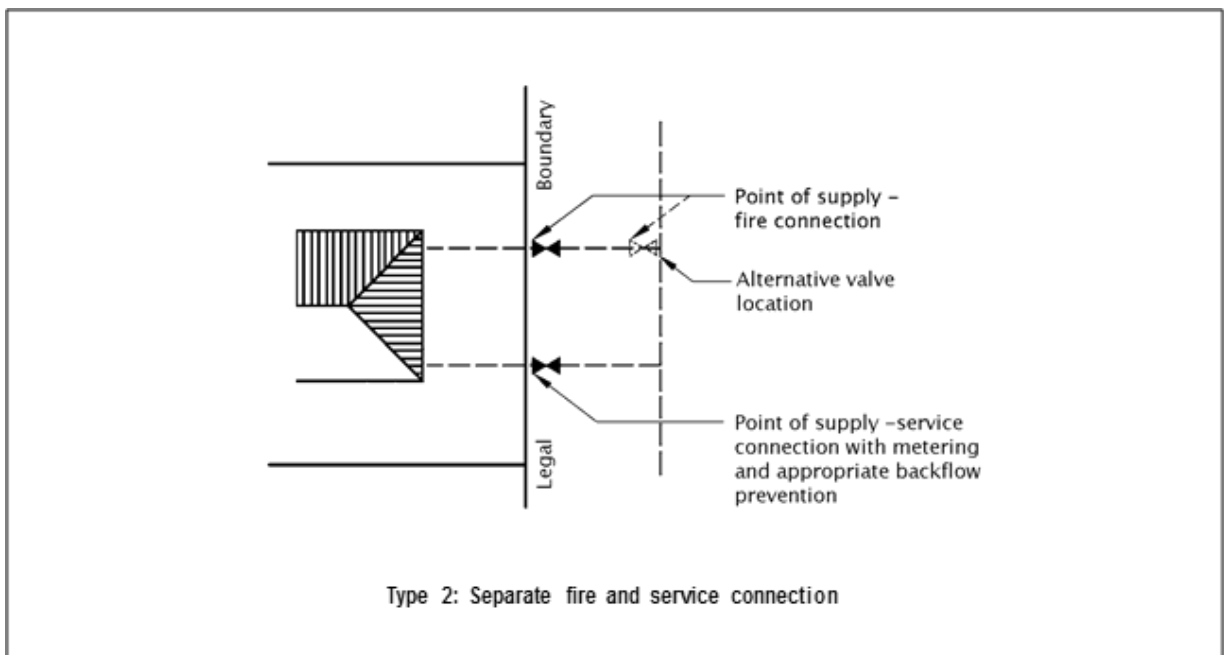
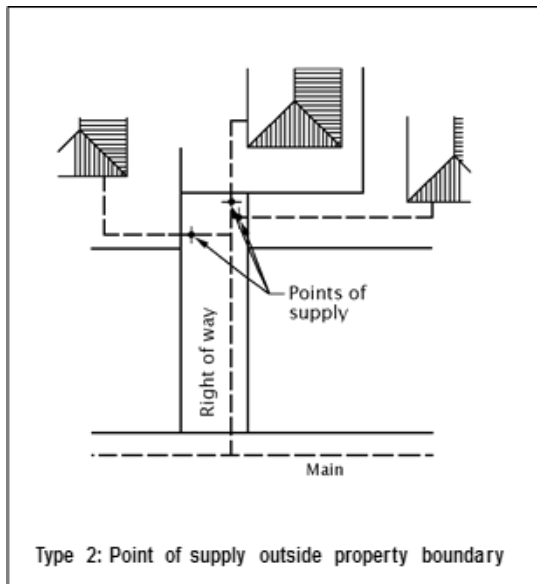
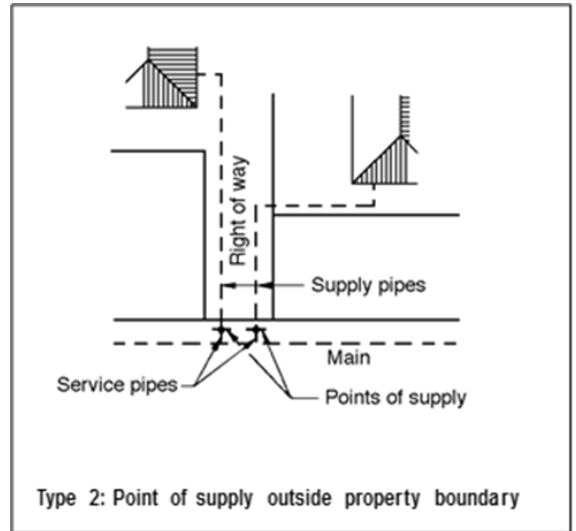
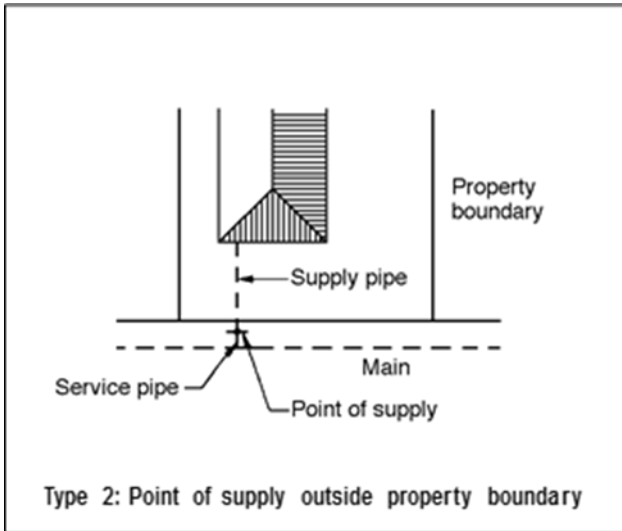
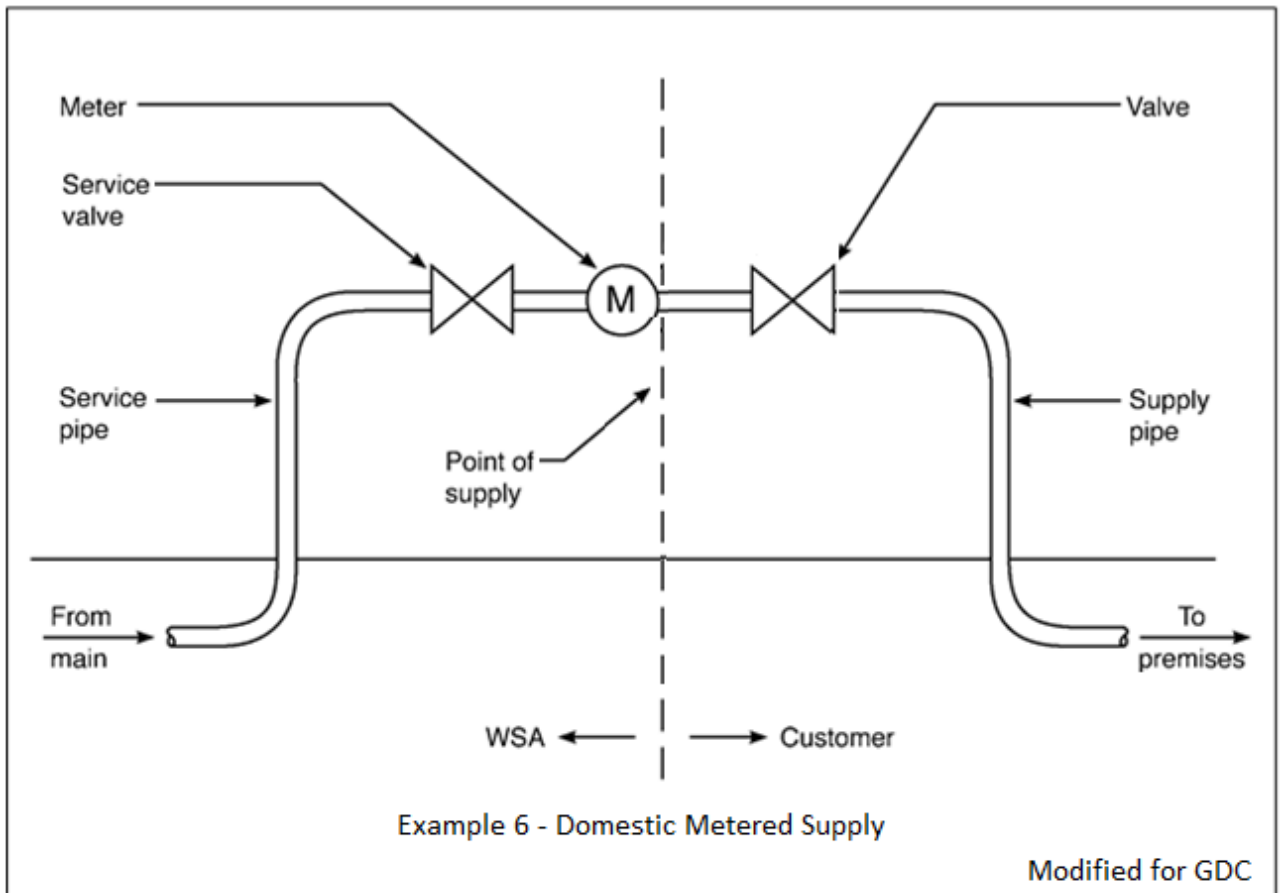
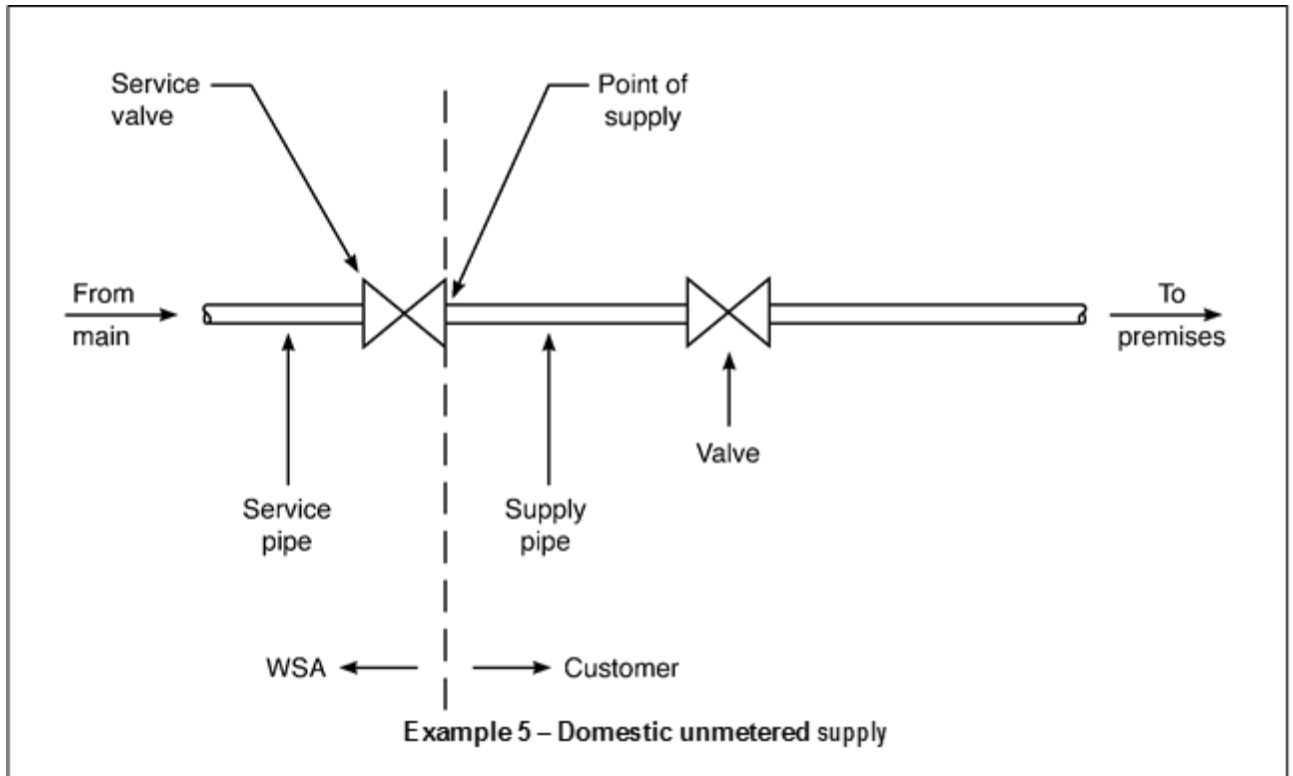
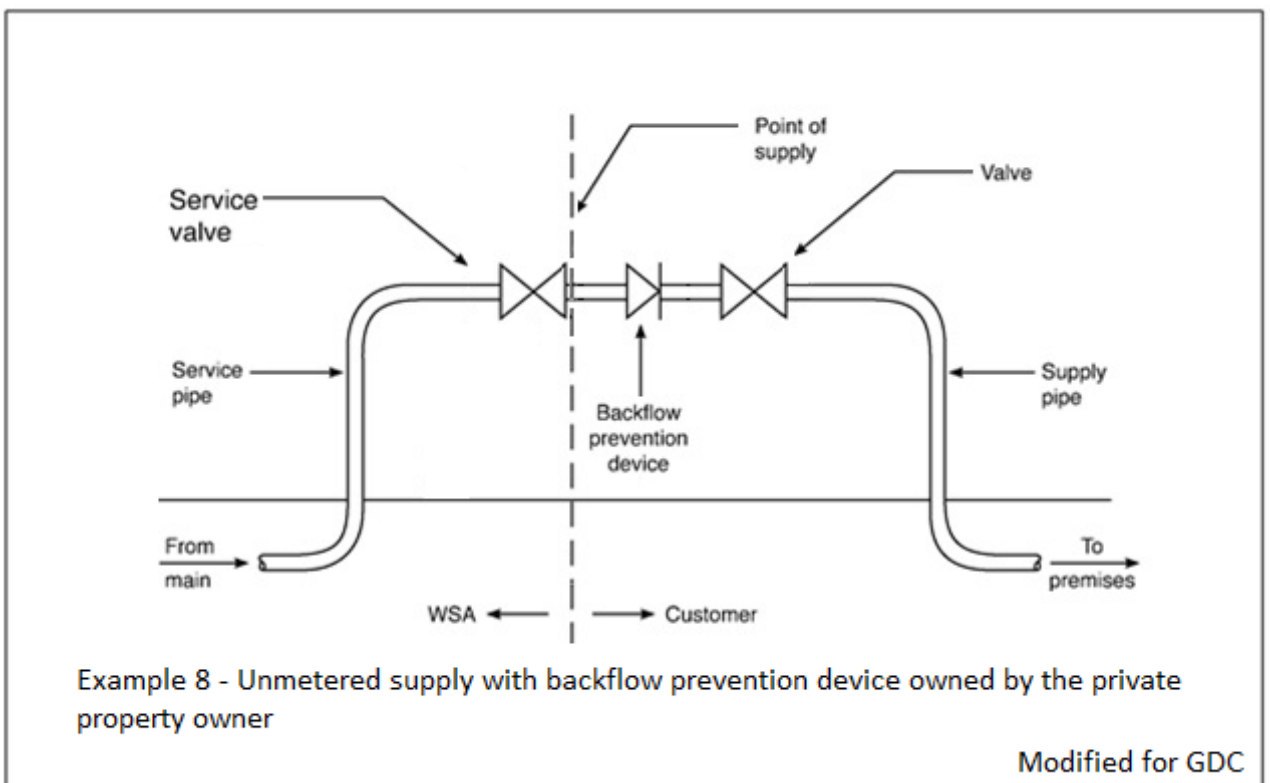
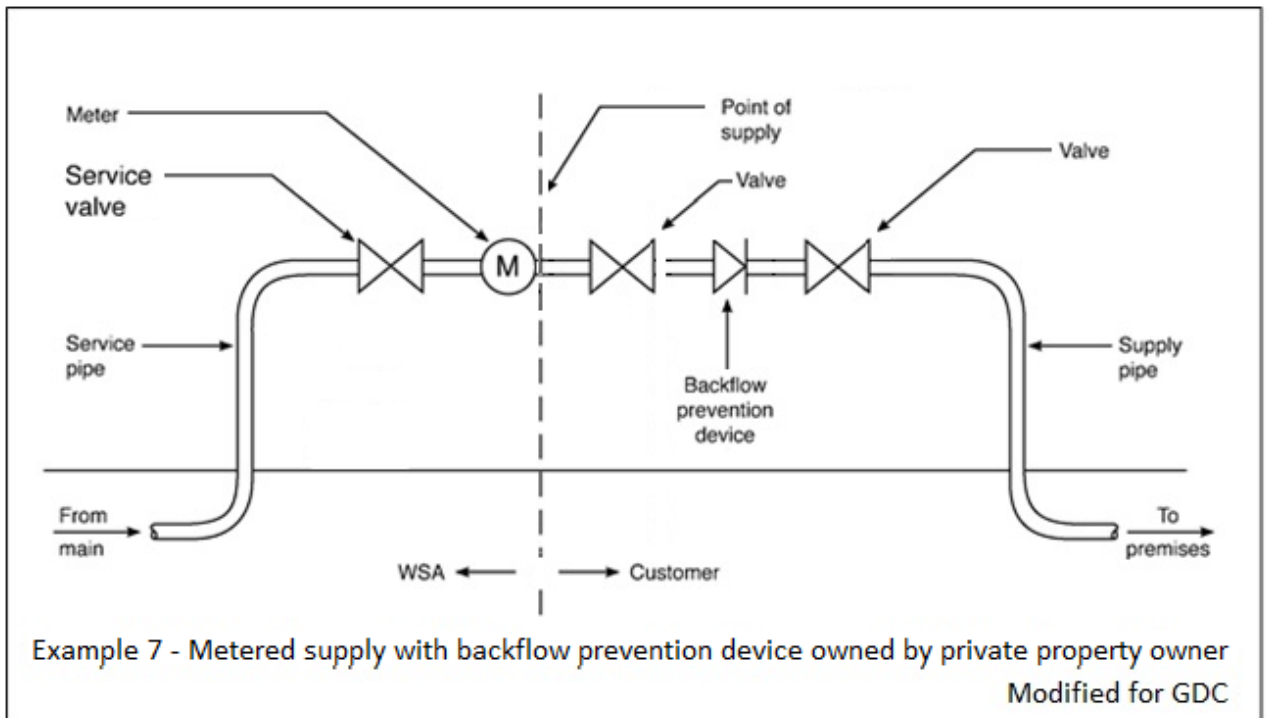


Figure 2 – Typical layout at point of supply - Individual customers





NOTE –

1. Point of supply is tail piece of boundary box, meter, or service valve regardless of property boundary.
2. The New Zealand Building Code may require the customer to install additional backflow prevention devices within the site, which will remain the responsibility of the customer.

10.2.3 Multiple ownership

The point of supply for the different forms of multiple ownership of premises and/or land shall be:

- a) For Company Share/Block Scheme (Body Corporate) – as for single ownership;
- b) For Leasehold/Tenancy in Common Scheme (Cross Lease), Strata Title, Unit Title (Body Corporate) and any other form of multiple ownership – each customer shall have an individual supply with the point of supply determined by agreement with the WSA. In specific cases other arrangements may be acceptable, subject to individual approval.

For a multiple ownership supply which was in existence prior to the coming into effect of this Bylaw, the point of supply shall be the arrangement existing at that time, or as determined by agreement with the WSA for any individual case.

10.3 Access to, and about point of supply

10.3.1 Rights of access

Where the point of supply is on private property the customer shall allow the WSA access to, and about the point of supply between 7.30 am and 6 pm on any day for:

- a) Meter reading without notice; or
- b) Checking, testing and maintenance work with notice being given whenever possible. Outside these hours (such as for night time leak detection) the WSA shall give notice to the customer. Where access is not made available for any of the above times and a return visit is required by the WSA, a rate may be charged as for 'Meter reading by appointment'. Under emergency conditions the customer shall allow the WSA free access to, and about the point of supply at any hour.

10.3.2 Maintenance of access

The customer shall maintain the area in and around the point of supply keeping it free of soil, growth, or other matter or obstruction which prevents, or is likely to prevent convenient access.

10.4 Types of supply

10.4.1 General

Supplies shall be classified as either 'on demand' or 'restricted flow' and the use of water from the supply shall be either 'ordinary' or 'extraordinary'.

10.4.2 On demand supply

Every premises shall be entitled to an ordinary supply of water subject to the following conditions:

- a) The domestic premises lying within an urban, residential, and township environmental zone as defined in Council's District Plan and where the WSA has in place water supply services.
- b) The exclusion of its use for garden watering under any restrictions made by the WSA under 10.7.3;
- c) Payment of the appropriate charges in respect of that property;

- d) Any other charges or costs associated with subdivisional development; and
- e) Any other relevant conditions in section 9 of this Bylaw.

The WSA shall be under no obligation to provide an extraordinary supply of water (see also the provisions of 10.7 and 10.9.2).

10.4.3 **Restricted flow supply**

Restricted flow supply shall be available to premises within a designated area only, or under special conditions set by the WSA. The water supply shall be restricted so as to deliver the agreed number of water units at a steady flow rate.

Where there are no designated restricted supply areas, any areas immediately outside the areas defined for on demand supplies may be deemed by the WSA to be such areas. Potential customers may apply to connect to a water supply system under the following conditions:

- a) The WSA deems that there is sufficient capacity in the overall system that does not compromise current and future users of the on-demand supply.
- b) The WSA deems that it is technically feasible to extend the supply network to the customer's property.
- c) The potential customer agrees to be provided with a restricted supply and/or under special conditions set by the WSA.

The WSA shall charge for the restricted flow supply by either:

- a) The volume passing through a meter; or
- b) The agreed number of water units.
- c) Initial establishment costs of supply, if any.

10.4.4 **Ordinary use**

Ordinary use is for domestic purposes (which may include use in a fire sprinkler system to NZS 4517) and shall include, subject to the provisions of 10.7.3);

- a) Washing down a car, boat, or similar;
- b) Garden watering by hand;
- c) Garden watering by a portable sprinkler;

NOTE – For use from a fire protection system to NZS 4517 to be classified as an ordinary use, the customer should comply with the conditions set under 10.9.1.

10.4.5 **Extraordinary use**

Extraordinary use includes:

- a) Domestic – spa or swimming pool in excess of 10 m³ capacity, fixed garden irrigation systems,
- b) Commercial and business;
- c) Industrial;
- d) Agricultural;
- e) Horticultural;

- f) Lifestyle blocks (peri-urban or small rural residential);
- g) Fire protection systems other than sprinkler systems installed to comply with NZS 4517;
- h) Out of district (supply to, or within another local authority);
- i) Temporary supply;
- j) Other uses that are deemed by the WSA to be an extraordinary use due to not meeting the definition of an ordinary use of the water supply.

10.5 Metering

An ordinary use of water shall not normally be metered (subject to the WSA reserving the right to fit a meter and charge where it considers water use is excessive, or for a meter to be fitted at the customer's request), and the cost of such use shall be as prescribed in the Local Government (Rating) Act 2002, sections 9, 15 to 19, and sections 101 to 103.

An extraordinary use shall normally be metered and charged for in accordance with 10.15. Where the extraordinary use is for fire protection only, this supply shall not normally be metered.

10.6 Level of service

The WSA shall provide water in accordance with the level of service contained in the Long-Term Plan. For those periods where the level of service allows non-compliance with the specified value(s), the WSA should make every reasonable attempt to achieve the specified value(s).

10.7 Continuity of supply

10.7.1 Supply

Due to practical and physical limitations the WSA cannot guarantee an uninterrupted or constant supply of water in all circumstances, or the continuous maintenance of any particular pressure, but shall do its best to meet the continuity of supply levels of 10.6, subject to the exemptions contained in 10.7.3 and 10.7.4. Where works of a permanent or temporary nature are planned which will affect an existing supply, the WSA shall consult with, or inform or give notice to all known customers likely to be substantially affected.

10.7.2 Uninterrupted service

If a customer has a particular requirement for an uninterrupted level of service (flow, pressure, or quality), it shall be the responsibility of that customer to provide any storage, back-up facilities, or equipment necessary to provide that level of service.

10.7.3 Demand management

The customer shall comply with any restrictions which may be approved by the WSA to manage high seasonal or other demands. Such restrictions shall be advised by public notice. Even when such restrictions apply the WSA shall take all practicable steps to ensure that an adequate supply for domestic purposes is provided to each point of supply.

10.7.4 Emergency restrictions

During an emergency the WSA may restrict or prohibit the use of water for any specified purpose, for any specified period, and for any or all of its customers. Such restrictions shall be advised by public notice. The WSA may enact penalties over and above those contained in these conditions to enforce these restrictions. The decision to make and lift restrictions, and to enact additional penalties, shall be made by the Council, or where immediate action is required, by the manager of the WSA, subject to subsequent Council ratification.

10.7.5 **Maintenance and repair**

Wherever practical the WSA shall make every reasonable attempt to notify the customer of a scheduled maintenance shutdown of the supply before the work commences. Where immediate action is required and notification is not practical, the WSA may shut down the supply without notice.

10.8 **Liability**

The WSA shall endeavour to meet the level of service requirements of 9.6, but shall not be liable for any loss, damage or inconvenience which the customer (or any person using the supply) may sustain as a result of deficiencies in, or interruptions to, the water supply.

The WSA may, under certain circumstances and at its sole discretion, make payments for damage caused to equipment, appliances, processes, and materials as a direct result of a variation in the water supply, provided that any such equipment or appliances have been designed to cater for reasonable variations in the flow, pressure, and quality of the water supply.

10.9 **Fire protection connection**

10.9.1 **Connection application**

Any proposed connection for fire protection shall be the subject of a specific application (on the standard WSA form) made to the WSA for approval. Any such connection shall be subject to the conditions specified by the WSA.

10.9.2 **Design**

It shall be the customer's responsibility to ascertain in discussion with the WSA and monitor whether the supply available is adequate for the intended purpose.

10.9.3 **Fire protection connection metering**

Where the supply of water to any premises is metered the WSA may allow the supply of water for the purposes of firefighting to be made in a manner which bypasses the meter, provided that:

- a) The drawing of water is possible only in connection with the sounding of an automatic fire alarm or the automatic notification of the fire brigade; or
- b) A WSA approved detector check valve has been fitted on the meter bypass.

Any unmetered connection provided to supply water to a fire protection system shall not be used for any purpose other than firefighting and testing the fire protection system unless the fire protection system is installed in accordance with NZS 4517. Where a fire connection has been installed or located so that it is likely or possible that water may be drawn from it by any person for purposes other than firefighting, the WSA may require the supply to be metered.

10.9.4 **Fire hose reels**

Where the supply of water to any premises is metered, fire hose reels shall be connected only to the metered supply, not to the fire protection system. The water supply to fire hose reels shall comply with the requirements of NZS 4503.

10.9.5 **Charges**

Water used for the purpose of extinguishing fires shall be supplied free of charge. Where the fire protection connection is metered and water has been used for firefighting purposes,

the WSA shall estimate the quantity of water so used, and credit to the customer's account an amount based on such an estimate.

10.9.6 Ongoing testing and monitoring

Customers intending to test fire protection systems in a manner that requires a draw-off of water, shall obtain the approval of the WSA beforehand. Water used for routine flushing and flow testing does not constitute waste, but the quantity of water used may be assessed and charged for by the WSA.

10.10 Backflow prevention

10.10.1 Customer responsibility

It is the customer's responsibility (under the Health Act 1956, and the Building Act 2004) to take all necessary measures on the customer's side of the point of supply to prevent water which has been drawn from the WSA's water supply from returning to that supply. These include:

- a. Backflow prevention either by providing an adequate air gap, or by the use of an appropriate backflow prevention device;
- b. The prohibition of any cross-connection between the WSA water supply and
 - i. Any other water supply (potable or non-potable)
 - ii. Any other water source
 - iii. Any storage tank
 - iv. Any other pipe, fixture or equipment containing chemicals, liquids, gases, or other non-potable substances.

NOTE – Fire protection systems that include appropriate backflow prevention measures would generally not require additional backflow prevention, except in cases where the system is supplied by a non-potable source or a storage tank or fire pump that operates at a pressure in excess of the WSA's normal minimum operating pressure.

10.10.2 Unmanaged risk

Notwithstanding 10.10.1 the WSA may require a backflow prevention device to be installed at the direction of the WSA, by the consumer, immediately inside the legal boundary, adjacent to the point of supply.

The cost of supply and installation of the approved backflow device will be met by the consumer.

10.11 WSA equipment and inspection

10.11.1 Care of water supply system

The customer shall take due care not to damage any part of the water supply system, including but not limited to pipework, valves, meters, restrictors, chambers, and backflow prevention devices.

10.11.2 Inspection

Subject to the provisions of the Local Government Act 2002, the customer shall allow the WSA with or without equipment, access to any area of the premises for the purposes of determining compliance with these conditions.

10.12 Meters and flow restrictors

10.12.1 Installation

Meters for on demand supplies, and restrictors for restricted flow supplies, shall be supplied, installed and maintained by the WSA, and shall remain the property of the WSA. Where on demand supplies are not universally metered, the WSA where it considers water use is unusually high, reserves the right to fit a meter at the customer's cost, and charge accordingly.

10.12.2 Location

Meters and restrictors shall be located in a position where they are readily accessible for reading and maintenance, and if practicable immediately on the WSA side of the point of supply, (see figure 2).

10.12.3 Accuracy

Meters shall be tested as and when required by the WSA or as prescribed in OIML R49. The maximum permissible error for the upper flow rate zone ($Q_2 < Q < Q_4$) is $\pm 2\%$, for temperatures from 0.3°C to 30°C and the maximum permissible error for the lower flow rate zone ($Q_1 < Q < Q_2$) is $\pm 5\%$. This accuracy shall be applied to all water meters with $Q_3 < 100 \text{ m}^3/\text{h}$ and may be applied to water meters with values of $Q_3 > 100 \text{ m}^3/\text{h}$.

The flow restrictors shall be accurate to within $\pm 10\%$ of their rated capacity.

NOTE – Where Q is the flow rate:

Q1 is the minimum flow rate;

Q2 is the transitional flow rate;

Q3 is the permanent flow rate; and

Q4 is the overload flow rate as defined in OIML R49-1.

% is percentage

\pm is plus or minus

30°C is 30 degrees Centigrade

m^3/h is cubic metres per hour

< means less than

> means greater than

Any customer who disputes the accuracy of a meter or restrictor may apply to the WSA for it to be tested provided that it is not within three months of the last test. If the test shows non-compliance with the accuracy above, the customer shall not be charged for the test. If the test shows compliance, the customer shall pay a fee in accordance with the WSA current fees and charges.

Meters shall be tested as prescribed in OIML R 49-2 and the test report shall be made available as prescribed in OIML R 49-3.

The variation in the error curve shall not exceed 3% for flow rates in the lower zone and 1.5% for flow rates in the upper zone. For the purpose of determining these requirements the mean values of the errors (of indication) at each flow rate, shall apply.

The curves shall not exceed a maximum error of $\pm 6\%$ for flow rates in the lower zones and $\pm 2.5\%$ for flow rates in the upper zones.

Restrictors shall be tested by measuring the quantity that flows through the restrictor in a period of not less than 1 hour at the expected minimum operating pressure. A copy of independent certification of the test result shall be made available to the customer on request.

10.12.4 Adjustment

If any meter, after being tested, is found to register a greater or lesser consumption than the quantity of water actually passed through such a meter, the WSA shall make an adjustment in accordance with the results shown by such tests, backdated for a period at the discretion of the WSA but not exceeding 12 months, and the customer shall pay a greater or lesser amount according to the adjustment.

Where a meter is under-reading by more than 20% or has stopped, the WSA reserves the right to charge for the amount of water assessed as having been used over the past billing period, taking into account any seasonal variations in demand.

Where a meter is over-reading, the WSA shall make appropriate adjustments to the customer's invoice(s), based on a period of similar use and backdated to when it is agreed the over-reading is likely to have occurred.

10.12.4 Estimating consumption

Should any meter be out of repair or cease to register, or be removed, the WSA shall estimate the consumption for the period since the previous reading of such meter, (based on the average of the previous four billing periods charged to the customer) and the customer shall pay according to such an estimate. Provided that when by reason of a large variation of consumption due to seasonal or other causes, the average of the previous four billing periods would be an unreasonable estimate of the consumption, the WSA may take into consideration other evidence for the purpose of arriving at a reasonable estimate, and the customer shall pay according to such an estimate.

10.12.6 Incorrect accounts

Where a situation occurs, other than as provided for in 10.12.5, where the recorded consumption does not accurately represent the actual consumption on a property, the account shall be adjusted using the best information available to the WSA. Such situations include, but are not limited to, misreading of the meter, errors in data processing, meters assigned to the wrong account, and unauthorised supplies.

Where an adjustment is required, in favour of the WSA or the customer, this shall not be backdated more than 12 months from the date the error was detected.

10.13 Plumbing system

Quick-closing valves, pumps, or any other equipment which may cause pressure surges or fluctuations to be transmitted within the water supply system or compromise the ability of the WSA to maintain its stated levels of service shall not be used on any piping beyond the point of supply. In special circumstances such equipment may be approved by the WSA.

In accordance with the Building Regulations 1992 the plumbing system shall be compatible with the water supply. Specific features of the WSA supply which need to be taken into account are contained in Table 1.

Table 1 – Compatibility features

Design Criteria		
Criteria	Value	Comment
Pressure	Max design Pressure: 900 kPa Max static Pressure: 500 kPa Min Pressure: 200 kPa Supply range: 37m	Refer to Figure 1 for pressure definitions GDC may adopted a lower minimum pressure or higher maximum pressure to suit specific usage or geographical conditions.
Supply per Household	Refer to Figure 2 in this appendix	
Supply for business zones	None specified	Determined on a case-by-case basis
Design period	50 to 100 years	GDC expect all water supply distribution system to have an asset life of at least 100 years. Other assets may have a shorter life.
Peaking Factors	Peak day = 1.38 to 1.85 x mean day demand Peak hour = 1.4 to 2 x mean demand	Peaking factors are likely to be low while leakage is high. However as leakage is reduced peaks will increase as a proportion of the mean demand.
Distribution Reservoir storage Reservoir storage volume has four components; freeboard, 24 hour storage, storage for firefighting and an inaccessible component.		Freeboard may vary for individual reservoir design. It includes a gap to prevent backflow & freeboard to accommodate earthquake induced sloshing. A volume equal to 24 hours at mean demand provides peak hour buffer and storage to cover an emergency such as a WTP shutdown. Firefighting component is the volume required to meet the New Zealand firefighting code. The inaccessible water is at the bottom of the reservoir. It cannot physically flow to the distribution network and should not as it contains settled sediment. Reservoirs to be designed and constructed to IL 4 Standard
District Metered Areas (DMAs)	500 to 5,000 properties	Networks with very poor infrastructure condition and high burst frequency = 500 properties per DMA. For DMAs larger than 5,000 properties it becomes difficult to discriminate small bursts e.g. service pipe bursts. ²³

10.14 Prevention of waste

The customer shall not intentionally allow water to run to waste from any pipe, tap, or other fitting, nor allow the condition of the plumbing within the property to deteriorate to the point where leakage or wastage occurs.

The WSA provides water for consumptive use not as an energy source. The customer shall not use water or water pressure directly from the supply for driving lifts, machinery, educators, generators, or any other similar device, unless specifically approved.

The customer shall not use water for a single pass cooling system or to dilute trade waste prior to disposal, unless specifically approved.

10.15 Payment

The customer shall be liable to pay for the supply of water and related services in accordance with the WSA fees and charges prevailing at the time.

The WSA may recover all unpaid water charges as prescribed in the Local Government (Rating) Act 2002, sections 57 to 82.

10.16 Transfer of rights and responsibilities

The customer shall not transfer to any other party the rights and responsibilities set out in this Bylaw.

A supply pipe shall serve only one customer and shall not extend by hose or any other pipe beyond that customer's property.

In particular and not in limitation of the above any water which the customer draws from the WSA supply shall not be provided to any other party without approval of the WSA.

10.17 Change of ownership

In the event of a premises changing ownership the WSA shall record the new owner as being the customer at that premises. Where a premise is metered the outgoing customer shall give the WSA five working days' notice to arrange a final meter reading.

10.18 Disconnection at the customer's request

The customer shall give 20 working days' notice in writing to the WSA of the requirement for disconnection of the supply. Disconnection shall be at the customer's cost.

11. BREACHES AND INFRINGEMENT NOTICES

11.1 Breaches of conditions of supply

The following are deemed breaches of the conditions to supply water:

- a) An incorrect application for supply which fundamentally affects the conditions of supply (section 10);
- b) Failure by the customer to meet and comply with the conditions of supply;
- c) Failure to meet any obligation placed on the customer under all current Acts and Regulations specified in section 6(a);
- d) Frustration of the WSA's ability to adequately and effectively carry out its obligations;
- e) An act or omission including but not limited to any of the following:
 - i. Failure to pay the appropriate charges by the due date
 - ii. Failure to repair a leak, or in any way wilfully allowing water to run to waste, or to be misused
 - iii. The fitting of quick-closing valves, pumps, or any other equipment which may cause pressure surges or fluctuations to be transmitted within the water supply system, or compromise the ability of the WSA to maintain its stated levels of service (subject to 10.13)
 - iv. Failure to prevent backflow (see 10.10)
 - v. Failure to comply with water use restrictions or prohibitions introduced by the WSA for any specified purpose
 - vi. Using water or water pressure directly from the supply for driving lifts, machinery, eductors, generators, or any other similar device, unless specifically approved by the WSA
 - vii. Using water for a single pass cooling or heating system, or to dilute trade waste prior to disposal, unless specifically approved
 - viii. Extending by hose or any other pipe a private water supply beyond that customer's property
 - ix. Providing water drawn from the WSA supply to any other party without approval of the WSA.

In the event of a breach, the WSA shall serve notice on the customer advising the nature of the breach and the steps to be taken to remedy it. If, after one week, the customer persists in the breach, the WSA reserves the right to reduce the flow rate of water to the customer without notice. In such an event the full service of the supply shall be re-established only after payment of the appropriate fee and remedy of the breach to the satisfaction of the WSA.

In addition, if the breach is such that the WSA is required to disconnect the supply for health or safety considerations, such disconnection should be carried out forthwith.

11.2 Interference with equipment

Any tampering or interfering with WSA equipment, either directly or indirectly, shall constitute a breach. Without prejudice to its other rights and remedies, the WSA shall be entitled to estimate (in accordance with 10.12.5) and charge for the additional water consumption not recorded or allowed to pass where a meter or restrictor has been tampered with, and recover any costs incurred.

11.3 Penalties for Breach of Bylaws

Every person who commits an offence against this Bylaw is liable to:

- a) The penalty set out in section 238 of the Local Government Act 2002; or
- a. Where another enactment specifies the penalty for a breach of the Bylaw, that other penalty (for example Schedule 4 of the Land Transport Act 1998).

11.4 In accordance with section 162 of the Act, the Council may apply to the District Court for an injunction to restrain a person from committing a breach of this Bylaw.

Schedule 1: Relevant Legislation, References, Policy Documents and Standards

New Zealand Legislation

- Building Act 2004
- Building Regulations 1992 Schedule 1 (New Zealand Building Code)
- Fire and Emergency New Zealand Act 2017
- Health Act 1956
- Health (Drinking Water) Amendment Act 2007
- Local Government Act 2002
- Local Government (Rating) Act 2002
- Resource Management Act 1991
- Summary Proceedings Act 1957
- Wildlife Act 1953
- Land Transport Management Act 2003

New Zealand Standards

- NZS 4503:2005 Hand operated fire-fighting equipment
- NZS 4515:2003 Fire sprinkler systems for residential occupancies
- NZS 4517:2002 Fire sprinkler systems for houses
- NZS 4541:2003 Automatic fire sprinkler systems NZS 9201:

New Zealand Publicly Available Specification

- SNZ PAS 4509:2008 New Zealand Fire Service firefighting water supplies code of practice

International Publications

- OIML R 49-1:2006 Water meters for the metering of cold potable water and hot water Part 1 Metrological and technical requirements. Paris: Bureau International de Métrologie Légale
- OIML R 49-2:2006 Water meters for the metering of cold potable water and hot water Part 2 Test methods. Paris: Bureau International de Métrologie Légale
- OIML R 49-3:2006 Water meters for the metering of cold potable water and hot water Part 3 Test report format. Paris: Bureau International de Métrologie Légale

British Standard

- BS EN 14154-3:2005 Water meters. Test methods and equipment

Other Publications

- Ministry of Health. Drinking Water Standards for New Zealand, 2005 (revised 2018) and all subsequent amendments that are required to be met by Legislation
- New Zealand Water and Wastes Association (NZWWA). Backflow Code of Practice, 2006.
- New Zealand Water and Wastes Association (NZWWA). Water Meter Code of Practice, 2003.

Related Documents

- AS/NZS 4020:2005 Testing of products for use in contact with drinking water
- Grey District Council Introductory Bylaw
- Grey District Council Public Places Bylaw