

Testing and Reporting Backflow Prevention Devices Procedure

Scope/Purpose: Backflow of contaminated water into drinking water networks is one of the biggest risks to a water supply. It is a potential source of contamination that can seriously affect the quality and safety of our drinking water causing illness or death. It is important that correct boundary devices are installed on all potentially hazardous sites and that they continue to operate reliably through regular testing. Results of the regular testing must be maintained.

Health & Safety and Operational Information

Hazard Indicators



Personal Protection



Health and Safety Information

- Health and Safety documentation.
- Generic Traffic Management Plans or site-specific Traffic Management plan.
- Hazardous Waste
- Confined Space Entry

Operation's & Maintenance Documentation

- Corridor Access Requests (CAR) and WIP Permits (site specific or generic/global)
- Service plans (B4uDig)
- Design drawings
- Site plans
- Notification Calling Cards

Customer Information (Confidential)

- Vulnerable customers (DHB supplied list)
- Priority customers (WWL)

Priority Customer Categories

- Schools and Childcare
- Commercial premises
- Hospitals
- Retirement Homes/Villages
- Correction Facilities
- Military Installations
- Oil and Gas Refinery

Emergency Procedure / Escalation

- Make "Site Safe" and isolate risks to people or property with resources at hand
- In event of service strike to utility/energy source (e.g. fuel, Gas, Power, Water etc.) report immediately to team leader

Additional Documentation

- Specialised equipment needed –
- Fulton Hogan Work Instruction for Disinfection of Water Systems
- NZ Backflow Testing Standard 2019 Field Testing of Backflow Prevention Devices and Verification of Air gaps (Water NZ and Master Plumbers)
- Individual Council Backflow policy

Escalate if extra resources required or problems occur!

- Escalate to Team Leader and inform of the issues faced and/or expected resources required if necessary.

Required Skills, Competencies (Qualifications and/or Certifications)

Backflow testing shall be undertaken by a competent person qualified (certified) to test backflow devices (currently NZ Unit standards 23848 and 23847 – see details below)

Document Owner: Manager Customer Planning

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Standard Operating Procedure

Required Equipment

Equipment and Information	Details
Fully Equipped Vehicle	Ensure vehicle, plant, equipment and materials appropriate to the day's work schedule is available.
Specialist Equipment	Testing equipment (with annual calibration certificate) Disinfection equipment

Prepare to do the work

Action	Action Details
Pre Start Process	Complete the Daily Pre Start Planned Maintenance.
Compliance	Traffic Management Plan - Where required, TMP to be in place prior to work starting. TMP to be accessible on site.
Customer Notification	Liaise with occupier/owner of premise prior to conducting tests as the testing could affect production and their ability to operate their business.

Perform the work

Action	Trade	Action Details
Compliance	Certified Serviceperson	Implement TMP if required
When to Test	Certified Serviceperson	Testing (for high and medium risk connections) should occur: <ul style="list-style-type: none"> After installation After maintenance and repair At intervals not exceeding 12 months
Testing	Certified Serviceperson	Hygiene procedures during this work are important, ensure good work practices are always followed. Note - All valves and test cocks should be open and closed slowly to prevent pressure spikes or damage to the valves or testing equipment. Comment on the security of each installation (i.e. presence of protective cage/integrity of protection). Confirm direction of flow.
	Certified Serviceperson	Inspect and clean out the strainer unit. Identify test cocks and fit adaptors if required. Complete testing dependent on type of device (see appendices in NZ Backflow Testing standard). Turn water back on to the system – slowly.
Reporting	Certified Serviceperson	Test reports to client to contain details of: <ul style="list-style-type: none"> Device Location and ownership Device specific information Detail failed devices and any non-compliances noted with the installation Test certificate – examples provided in Appendix O of the NZ Backflow Testing Standard Copies of reports to be provided to relevant regulatory authority (usually council), water supply authority and Building compliance officer (IQP).
Retention	Certified Serviceperson	Tester to retain copy of inspection and test reports
Retention	Certified Serviceperson	Owner / occupier to retain copy of inspection and test reports
Close out	Certified Serviceperson / Team Leader	Update as required. If the device has failed ensure that procedures are followed to alert the water supplier, device owner (if different) and ensure that work to repair/replace is scheduled. All backflow device details should be maintained in an asset database by water supplier, including type, serial number, ownership details, expected hazards on site, date of installation, commissioning testing and subsequent dates and results of annual testing.