



Local Approvals Policy

Cross-Connection Control and Backflow Prevention

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PURPOSE

The objectives of this policy are: -

- To minimise public health risk
- To protect the quality of the potable water supply in Council's water reticulation system, and
- To ensure cross-connection control is properly managed within properties undertaking commercial activities.

STATEMENT

As drinking water quality standards have increased across Australia due to community expectations, a greater focus has been given to the prevention of contamination of water reticulation systems.

State Government and Australian Standards have regulated cross-connection control and backflow prevention for a long period of time. These require the local Water Authority to take measures to ensure compliance and assist in the protection of public health.

Shoalhaven City Council is the statutory authority responsible under the Local Government Act 1993 for water supply in the City of Shoalhaven. "Council" in this document refers to "Shoalhaven City Council".

This policy forms part of the conditions for approval to draw water from the Council potable water supply under Section 68 Part B (2) of the Local Government Act 1993.

Cross-connection control is the control of contamination of a reticulation system (whether Council mains or private services) from potential sources within premises connected to the water reticulation system.

Cross-connections are rated using three degrees of hazards which are as follows:-

- **High hazard** - Any conditions, device or practice which in connection with the water supply system has potential to cause death.
- **Medium hazard** - Any condition, device or practice which in connection with the water supply system could endanger health
- **Low hazard** - Any condition, device or practice which in connection with the water supply system would constitute a nuisance but not endanger health.

Backflow prevention is defined as:-

"The prevention of: -

- a) Flow in a direction contrary to the normal or intended direction of flow; and/or
- b) The unintended flow of water from a potentially polluted source into a potable water supply."

Backflow generally occurs from a property to the water supply system in instances where there is a pressure differential between the water main and the property. This usually occurs if there is a break in the water main and the main is turned off and drained creating a pressure differential from the property to the main. It can also occur if there is a significant draw on the water supply through

firefighting activities. For typical household meters, backflow is prevented through a non-return valve attached to the meter.

1 Exemption circumstances

No exemptions shall apply.

2 Criteria for determination of an Application

2.1 Matters for Consideration

The following is a list of matters which Council will consider in determining an application for approval in addition to statutory requirements: -

- The protection of public health
- The protection of the environment
- The safety of its employees
- The safeguarding of its assets; and
- Purpose for which the water will be used
- Rate of withdrawal of water
- Any other matter considered relevant in the circumstances

2.2 Cross-Connection Control

- 2.2.1 Only potable water shall be supplied to plumbing fixtures or outlets used for drinking, bathing, culinary use, or the processing of food, medical or pharmaceutical products. All water supply systems shall be designed, installed and maintained so as to prevent contaminants from being introduced into potable water supply systems.
- 2.2.2 No device or system that may permit the introduction of any foreign substance into the water service shall be connected directly or indirectly to any other part of the water supply system (including fire protection, garden watering and irrigating systems) or to any temporary attachment to the water service without a method of cross-connection control and backflow prevention authorised by a regulatory authority.

2.3 Backflow Prevention

- 2.3.1 Backflow protection is required by first identifying the individual hazards within premises using the above matters for consideration. In working upstream from each hazard the water shall be regarded as non-potable until a backflow prevention device is provided, suitable to the degree of hazard. Backflow prevention devices shall comply with Australian Standards – AS2845.
- 2.3.2 In assessing a potential backflow condition consideration must be given to the complexity of piping, the probability of piping change and negligent or increased use of equipment resulting in a backflow condition.

Backflow prevention devices shall be provided in accordance with the hazard rating, the suitability of the device and for:

- a) **Individual Backflow Protection**, protection shall be provided at the water connection to a fixture or appliance;
- b) **Zone Backflow Protection**, protection shall be provided in the connection to specified sections of a plumbing system within a building or facility; and
- c) **Containment Backflow Protection**, protection shall be provided in the property service connection immediately downstream of the water meter(s) serving the property.

- 2.3.3 Upon application for development approval of a proposed/altered use within a property, a condition may apply for the installation and registration of an appropriate backflow prevention device for the designated hazard rating. Where directed by Council, the property owner(s) and/or occupier(s) must make the necessary arrangements for a cross-connection control survey to be undertaken by an appropriately qualified person. The results of the survey are to be ratified by Council.
- 2.3.4 Where potential for cross-connection may occur between subdivided or strata properties, appropriate backflow devices must be fitted for site containment at each strata property. Such devices must be consistent with the highest risk rating.
- 2.3.5 Domestic premises that have a rainwater tank installed must also have the required backflow prevention devices installed.
- 2.3.6 Council may at any time, where it deems necessary, require that a backflow survey be undertaken or require that backflow prevention devices be installed.

2.4 Initial Installation of Testable Devices

The property owners and/or occupiers of properties must undertake the necessary arrangements to install, to have tested and to register backflow devices by:-

- engaging a licensed plumber for installation of such devices;
- engaging a licensed plumber, qualified in Backflow Prevention and authorised by the Council for testing of such devices;
- payment of the fee for inspection of the installation and initial registration of the devices installed. Where, due to non-compliance, additional inspections are required then an additional inspection fee may apply.

2.5 Annual Testing and Maintenance of Backflow Devices

2.5.1 Annual Testing

At 12 monthly intervals, the property owners and/or occupiers of properties must ensure that testable devices are tested and are maintained if required.

Council shall give notice to property owners, or their designated contact person, four (4) weeks in advance when annual testing and certification of devices is required and due, including required fees.

Testing, and maintenance where necessary must be carried out by a licensed plumber qualified in Backflow Prevention and authorised by Council. Results of the test and

maintenance must be forwarded to Council within 2 weeks of the test date. Council must be advised if the results cannot be forwarded due to a delay with maintenance.

Certification of the device must be registered with Council, which includes payment of the annual registration fee.

2.5.2 Late Annual Registration

Formal notice under Section 124 of the Local Government Act will be sent if certification by a qualified person has not been received within two (2) weeks of the due date. A late fee will apply for each four (4) week period (or part thereof) overdue until receipt of the appropriate certification. Council may also take action in accordance with the Water Availability and Connection Policy. Such action can include issues of notices, application of restrictors to the water supply or shutting off water supply.

2.6 Failure to Register, Test or Maintain Devices

Council may take action as per clause 2.5.2 in order to protect the town water supply from possible contamination.

3 Other matters

3.1 Implementation

Cross-connection control and backflow prevention is referenced in the N.S.W. Plumbing & Drainage Code of Practice 2006 referred from the Local Government Act (Water, Sewerage and Drainage Regulations, 1993). The N.S.W. Plumbing & Drainage Code of Practice also refers to the National Plumbing & Drainage Code AS3500 (as amended) which specifies in detail the requirements for cross-connection control and backflow prevention.

Shoalhaven City Council is a statutory authority under the Local Government Act, 1993 and has responsibility for the regulation of cross-connection control and backflow prevention within the municipal district of Shoalhaven City.

The following Groups of the Council have responsibilities as detailed below:-

Shoalhaven Water Group has responsibilities to provide potable water to Australian Drinking Water Guidelines 2006 guidelines within the water supply reticulation systems up to and including meters on property boundaries.

Development and Environmental Services Group has responsibility for the approval, testing and inspecting water supply and sewerage plumbing within property boundaries. This regulatory function falls into two areas: -

- Approvals to carry out work under Section 68 of the Local Government Act for new or replacement work, and
- Orders made under Section 124 of the Local Government Act requiring work to be done in accordance with the N.S.W. Plumbing & Drainage Code of Practice 2006 and the National Plumbing and Drainage Code AS 3500.

Development and Environmental Services Group also has responsibility for protection of public health in compliance with;

- the Local Government Act, 1993; and
- the Public Health Act, 1991

From the above, Shoalhaven Water Group is responsible for the “containment protection” of properties that directly connect to the reticulated water supply system for control of cross-connection and prevention of backflow contaminating the system.

Development and Environmental Services Group has responsibility for “zone” and “individual” protection within properties.

3.2 Application of Ecologically Sustainable Development (ESD) Principles

To ensure future supply of safe drinking water to the community.

3.3 Information to be supplied with Application for Registration of Devices

The following is a list of information to be submitted with an application for registration of devices:

- Property details
- Owner details
- Occupier or owner layout details
- Principal process of the industry
- Nature of water use after each backflow prevention device
- Details of the backflow prevention device(s)
- Exact location of each backflow prevention device
- Type of raw materials processed
- List of chemicals used on the premises
- List any toxic or hazardous materials used in the manufacturing process (This list must be attached even if the material or its residues do not make contact with water).

3.4 Relevant Registers

Council will compile and update on a regular basis:

- a register of authorised licensed plumbers and qualified cross-connection surveyors.
- a register of properties, owners/occupiers where devices are installed (other than residential).
- a register of installed certified backflow prevention devices.

The list of local authorised licensed plumbers who are qualified in “Backflow Prevention” will be made available to owners/occupiers upon request.

3.5 Fees and Charges

Fees and charges relating to cross-connection control and backflow prevention are in accordance with the current, annually produced “Management Plan – Fees and Charges”.

3.6 Responsibility for the Payment of Fees and Charges

The owner of the land (property owner) is responsible for the payment of fees and charges pertaining to their premises. Where the premises are leased, any reimbursement of the lessor (property owner) by the lessee (occupier/operator) for fees and charges is solely a matter between the lessor and the lessee.

3.7 Review

In accordance with S 165 (4) of the Local Government Act 1993, this policy will be reviewed within one year of the election of every new Council.