



**APPEAL**  
*Integrated Planning Act 1997*

**File No. 3-08-008**

## **BUILDING AND DEVELOPMENT TRIBUNAL - DECISION**

**Assessment Manager:** Gold Coast City Council  
**Site Address:** *withheld*—"the subject site"  
**Applicant:** *withheld*

### **Nature of Appeal**

Appeal under the *Plumbing and Drainage Act 2002* and the *Integrated Planning Act 1997* against the decision of Gold Coast City Council to approve the installation of spring type fire hydrants subject to conditions including conditions referencing the requirements for installation of non certified items allowed for a fire service and amendments to the drawings requiring a backflow protection device between the internal distribution main and spring hydrants.

**Date and Place of Hearing:** 9:00 am Friday 14 March 2008 at the offices of the Department of Infrastructure and Planning, Level 3, 63 George Street, Brisbane.

**Tribunal:** David Kay - Chairperson  
Paul Funnell - Tribunal Member

**Present:** Applicant's representatives  
Knobel Consulting Pty Ltd's representative  
Brian Gobie - Gold Coast City Council Representative  
Greg Unwin - Gold Coast City Council Representative

### **Decision**

The decision of Gold Coast City Council dated 24 January 2008 approving the installation of spring type fire hydrants subject to eight conditions is **changed** by amending conditions 2 and 3 as follows:

2. Refer to Section 31 of the *Standard Plumbing & Drainage Regulation 2003* for the installation of non-certified items allowed for a fire service. It is to be noted that under AS5200.000 spring hydrants manufactured to AS3952 are not required to be watermark certified.
3. The works shall be carried out in accordance with the stamped approved plumbing and drainage drawings numbered C260 E prepared by Knobel Consulting Pty Ltd, the amendments noted in red are to be deleted and replaced by the following requirements that were previously set out in Tribunal decision 03-07-031 dated 23 July 2007.
  - (i) An approved backflow protection device to the specifications of Council shall be provided at the point of connection of the property water service to the town water supply;

- (ii) The Alternative Solution is to have in place a management plan for the maintenance and monitoring of spring hydrants in lieu of a check valve between the spring hydrant and the water supply service; -
- (iii) The Alternative Solution is determined to constitute a testable backflow device under Section 38 of the *Standard Plumbing and Drainage Regulation 2003* and must be registered with Council (or the relevant entity controlling the public water supply external to the site);
- (iv) The system is to be inspected and tested every six months by a person licensed to do the work and approved by Council (or the relevant entity controlling the public water supply external to the site);
- (v) The test is to include a water quality test for potable drinking water carried out by a registered testing authority, such as NATA laboratory, approved by Council (or the relevant entity controlling the public water supply external to the site);
- (vi) The Spring Hydrant Maintenance Management Plan is to be amended to include:-
  - (a) In Section 1.2.2 Aims an additional aim:  
 “To ensure that Council and local water main is not contaminated following the shutdown of any part of the internal water supply service resulting from plumbing work, breakage or maintenance”.
  - (b) A new Section 1.3.4:  
 “Monitoring and Recording of Plumbing Work and Maintenance on Water supply Service”.
- (vii) The owner of the development is to keep and maintain a register of plumbing work and maintenance carried out on the internal water supply service.
- (viii) All work and maintenance work carried out on the internal water supply service is to be recorded in the register.
- (ix) When a section of the internal water supply main is, for any reason, isolated by turning off the stop valves at each end of that section a check of the operation of the spring valve hydrants in that section shall be carried out for flow and also leakage. In addition a water quality test shall be taken from that section of the internal water supply service.
- (x) This information is to be recorded in the register and details submitted to Council as part of the written results of the testable backflow device required to be provided under Section 38(4) of the *Standard Plumbing and Drainage Regulation 2003* to Council every six months.

## **Background**

### *Applicant’s submission to the tribunal*

The grounds of appeal submitted by the applicant are summarised as follows:-

- Council erred in imposing conditions and attempting to regulate a premises group main as a fire service.
- Council erred in requiring that the spring type fire hydrants have watermark certification under the Watermark Certification Scheme.
- Council erred in its requirement that each spring type fire hydrant have an approved backflow protection device.
- Council erred in not following and accepting the decision of the Building and Development Tribunal dated 23 July 2007 with respect to file number 03-07-031.
- Council erred in not accepting the provision of spring hydrants as a premises group main on the merits.

- Council erred in not following the provisions of the *Plumbing and Drainage Act 2002* and Standard Plumbing and Drainage Regulations, along with the requirements of the Australian Standards and the Gold Coast Planning Scheme.

Gold Coast City Council submission to the tribunal

- The details of the previous Tribunal decision for Appeal 03-07-031 dated 23 July 2007 have not been considered and included in the decision. The Tribunal should include the requirements of the previous decision in this decision.
- Clarification is requested in relation to spring type fire hydrants and the relevance of the Watermark Certification Scheme.

**Material Considered**

- Material submitted by the applicant with “Form 10” appeal notice to the Tribunal;
- Compliance Permit-Spring Hydrants dated 24 January 2008 issued by Council;
- Verbal submission from Council at the hearing;
- The *Integrated Planning Act 1997*;
- The *Plumbing and Drainage Act 2002*;
- The *Standard Plumbing and Drainage Regulation 2003*;
- Referenced Australian Standards; and
- Tribunal Decision 03-07-031 dated 23 July 2007.

**Findings of Fact**

- A Compliance Permit for Spring Hydrants was issued with conditions by Council.
- The appeal to a Building and Development Tribunal was lodged within the required time.
- The Tribunal has jurisdiction to hear the appeal.
- Spring fire hydrants have been installed on the water supply service.

**Reasons for the Decision**

In addressing the applicant’s grounds of appeal the following reasons are provided.

- *Council erred in imposing conditions and attempting to regulate a premises group main as a fire service.* The applicant in the design could have provided a separate fire main system. Had this been the case, Council’s jurisdiction for plumbing and drainage work would have been limited to the construction of the pipework and fittings for the fire main and the consideration of backflow (unless the planning approval or planning scheme specified flows and pressures for the system). The decision by the designer to provide the fire hydrant feed for each hydrant individually on the group premises main means that the local government must consider the matter of backflow from each hydrant. The consideration of backflow and also the materials of construction and pipework associated with each hydrant comes under the jurisdiction of plumbing and drainage work. Whether the hydrant delivers a specified flow and pressure to serve the development is not part of plumbing and drainage work.
- *Council erred in requiring that the spring type fire hydrants have watermark certification under the Watermark Certification Scheme.* AS5200.000-2006 Appendix D lists products outside the Watermark Scheme and lists products that are not required to be watermark certified. This schedule includes spring hydrants manufactured in accordance With AS 3952.

- Council erred in its requirement that each spring type fire hydrant have an approved backflow protection device. Whilst backflow protection is required a performance solution involving a management system was developed to provide a method of managing potential contamination from backflow.
- Council erred in not following and accepting the decision of the Building and Development Tribunal dated 23 July 2007 with respect to file number 03-07-031. This statement is agreed with.
- Council erred in not accepting the provision of spring hydrants as a premises group main on the merits". This forms part of the previous decision allowing a performance solution.
- Council erred in not following the provisions of the Plumbing and Drainage Act 2002 and Standard Plumbing and Drainage Regulations, along with the requirements of the Australian Standards and the Gold Coast Planning Scheme. Council assessed the application under the correct legislation but may not have referred to AS5200.000 that does not include spring hydrants in the Watermark Certification Scheme.

## Legislation

Section 36 of the *Standard Plumbing and Drainage Regulation 2003* requires that an appropriate backflow prevention device must be installed on premises if pollution of the water supply on the premises could be caused by the plumbing on the premises. An appropriate backflow device means a backflow prevention device that is specified for the particular circumstances under the applied provisions.

Section 8A of the *Standard Plumbing and Drainage Regulation 2003* requires compliance with the Plumbing Code of Australia Sections A, B, C and G. Section B deals with water services. Part B1- Cold Water Services and Part B4 Fire Services requires all aspects of the cold water service and the installation of fire fighting water services to be in accordance with AS/NZS 3500.1.

Section 11 of the *Standard Plumbing and Drainage Regulation 2003* limits the application of AS/NZS3500.1-2003 Section 6 Fire Services to aspects relating to the method of preventing contamination of water supply to the premises, the method of jointing, supporting or fixing of the pipework and the use of certified items in the plumbing.

If the applicant's proposal that the supply constitutes a water service is accepted, consideration must be given to the installation of an appropriate backflow device if pollution of the premises' water supply could occur.

For example, hose taps on the premises would need to be fitted with vacuum breakers. Irrigation systems would need to be fitted with appropriate backflow devices. Similarly, the hydrant connection, whether spring or pillar, represents a hazard that needs protection. The level of hazard is regarded as low hazard.

If it is considered that the service is not a water service and consists of a water service and a fire service or a series of fire services, with the fire service comprising the connection from the water main to the hydrant consideration of backflow is still required.

In conclusion, irrespective of what the overall water supply distribution system is called, backflow protection is required to be provided to the fire hydrants.

In summary,

- The applicant/developer included fire hydrants on the water service supply pipe.
- This forms part of the water supply plumbing work to be assessed by Council.
- The fittings and pipework for the fire hydrants, whether spring or pillar, form part of water supply plumbing work.

- The number, location and spacing plus flow and pressures from the hydrant/s do not form part of the water supply plumbing work to be assessed by Council under the plumbing and drainage work application.
- The connection of the hydrant/s to the water supply pipe is required to have an appropriate backflow prevention device. The deemed to satisfy requirements would require a check valve at each hydrant connection to the water supply pipe.
- The matter to be considered is whether pollution of the water supply on the premises or Council's water service to the premises could be caused by plumbing on the premises. (Section 36 SP&DR 2003).
- Also could the spring hydrant with a risk management strategy for maintenance prevent backflow or be considered to be an appropriate backflow management device?

The Plumbing Code of Australia allows for an Alternative Solution that complies with the *Performance Requirements* or is shown to be at least equivalent to the *Deemed to Satisfy Provisions* or is a combination of both.

The relevant Performance Requirements are:

#### BP1.2 Cold Water Installation

A cold water service must be designed ,constructed and installed in such a manner as to:

- avoid the likelihood of contamination of drinking water within both the water service and the Network Utility Operators supply;
- Not relevant
- avoid the likelihood of leakage or failure including uncontrolled discharges;
- Not relevant;
- allow adequate access for maintenance of mechanical components and operational controls; and
- allow the system, appliances and backflow prevention devices to be isolated for testing and maintenance where required.

#### BP4.1 Fire fighting water service

A fire fighting water service must be designed, constructed and installed in a manner which:

- avoids the likelihood of contamination of drinking water;
- Not relevant
- avoids the likelihood of leakage or failure including uncontrolled discharges;
- provides adequate access for maintenance of mechanical components and operational controls; and
- allows the system, appliances and backflow prevention devices to be isolated for testing and maintenance where required.

The applicant submitted a management plan and a risk assessment for the use of spring hydrants under the previous tribunal.

The risk assessment did not include a scenario where there is authorised work on the water supply pipe including shutdown of a section of the water supply pipe with a loss of pressure in that section of pipe and resulting in contamination from backflow through the spring valve.

The risk assessment did not include a scenario where there is authorised work on the water supply pipe including shutdown of a section of the water supply pipe with a loss of pressure in that section of pipe. This resulting in leakage of water from the spring hydrant after recommissioning due to the spring hydrant not being fully sealed due to valve system sticking from internal corrosion over time.

However, despite the above deficiencies in the submission, there should still be due consideration given to the matter.

A point of significance is that spring hydrants in Council's water supply system operate without a check valve and have a similar risk of contamination of the water supply system.

The local government is responsible for management and a maintenance system to ensure that this does not occur. Similarly, unauthorised connection to the spring hydrant and possible contamination could occur with the only manner of control being public scrutiny or surveillance.

It is considered that the same or higher level of surveillance would occur in a managed retirement community.

A procedure involving reporting and recording work on the internal system would be equivalent to a local government management system of the town water supply. This should be included in the management plan for the spring hydrants to satisfy the performance criteria of the Plumbing Code of Australia.

It is considered that the management plan submitted by the applicant under Tribunal 03-07-031 and considered by Council will satisfy, with amendments for shutting down sections of the internal water service, the performance criteria by avoiding the likelihood of leakage or failure including uncontrolled discharges, allowing adequate access for maintenance of mechanical components and operational controls, allowing the system, appliances and backflow prevention devices to be isolated for testing and maintenance where required.

---

**David Kay**  
**Building and Development Tribunal Chairperson**  
**Date: 28 March 2008**

## **Appeal Rights**

Section 4.1.37. of the IPA provides that a party to a proceeding decided by a Tribunal may appeal to the Planning and Environment Court against the Tribunal's decision, but only on the ground:

- (a) of error or mistake in law on the part of the Tribunal or
- (b) that the Tribunal had no jurisdiction to make the decision or exceeded its jurisdiction in making the decision.

The appeal must be started within 20 business days after the day notice of the Tribunal's decision is given to the party.

## **Enquiries**

All correspondence should be addressed to:

The Registrar of Building and Development Tribunals  
Building Codes Queensland  
Department of Infrastructure and Planning  
PO Box 15009  
City East QLD 4002  
**Telephone (07) 3237 0403 Facsimile (07) 3237 1248**