



**APPEAL**  
*Integrated Planning Act 1997*

**File No. 03-07-031**

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

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**Assessment Manager:** Gold Coast City Council

**Site Address:** *withheld*-“the subject site”

**Applicant:** *withheld*

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### **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 not to approve the installation of spring type fire hydrants and require the installation of pillar type fire hydrants with a check valve on the riser.

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**Date and Place of Hearing:** 1:00 pm on Friday 15 June 2007  
at 41 George Street, Brisbane.

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

**Present:** Applicant’s representatives  
Jeremy Wagner - Gold Coast City Council Representative  
Keith Farelly - Gold Coast City Council Representative  
Paul Novey - Gold Coast City Council Representative

### **Decision**

The decision of Gold Coast City Council dated 2 May 2007 not to approve the installation of spring type fire hydrants and require the installation of pillar type fire hydrants with a check valve on the riser is **set aside** and **replaced with the following decision:**

1. An approved backflow protection device to the specifications of the Gold Coast City Council shall be provided at the point of connection of the property water service to the town water supply;
2. 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; -

3. 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 the Gold Coast City Council (or the relevant entity controlling the public water supply external to the site);
4. The system is to be inspected and tested every six months by a person licensed to do the work and approved by the Gold Coast City Council (or the relevant entity controlling the public water supply external to the site);
5. 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 the Gold Coast City Council (or the relevant entity controlling the public water supply external to the site);
6. 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”.
7. 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.
8. All work and maintenance work carried out on the internal water supply service is to be recorded in the register.
9. 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.
10. This information is to be recorded in the register and details submitted to the Gold Coast 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 the Gold Coast Council every six months.

It should be noted that the Tribunal did not consider whether the planning approval and conditions for the development and relevant codes applicable at the time of the planning development approval required the site be provided with a system of fire hydrants.

## **Background**

### Applicant's submission to the tribunal

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

- The Gold Coast City Council erred in imposing conditions and attempting to regulate a premises group main as a fire service.
- There is no requirement to provide fire hydrants for a Class 1a building contained in the Building Code of Australia.
- The Gold Coast City Council erred in considering the provision of fire hydrants to constitute plumbing and drainage work.
- The Gold Coast City Council erred in requiring a fire hydrant installation under the provisions of the Gold Coast Planning Scheme and that the Council may only make a planning scheme instrument or local law for plumbing matters outside the scope of the *Standard Plumbing and Drainage Regulation 2003*.
- The Gold Coast City Council does not have jurisdiction to regulate the design of water services, as this is specifically addressed in AS3500.
- AS 2419.1 indicates acceptance of spring hydrants.
- The Gold Coast City Council erred in not accepting the provision of spring hydrants as a premises group main on the merits.

Other grounds submitted by the various consultants included:-

- Pillar hydrants represent a higher risk of damage from vehicular traffic and are a hazard for pedestrian traffic in a retirement community.
- The appearance of pillar hydrants is unattractive and the use of spring hydrants is preferable from an aesthetic and planning view.
- The water service in *withheld* is not a fire service as a fire service is utilised solely for fire fighting purposes and the water service is best described as a premises main.
- Fire services are not governed by the local government other than the limited application of Section 11 of the *Standard Plumbing and Drainage Regulation 2003* and are the responsibility of a building certifier on advice from the Queensland Fire and Rescue Service (QFRS).

### Gold Coast City Council submission to the tribunal

- The details for the decision have been provided in the responses to the applicant. The Gold Coast City Council have not been given sufficient grounds to satisfy itself that there is adequate provision for the prevention of backflow into the internal water supply system with the use of spring hydrants.
- The management plan did not satisfactorily address all the risks and actions to address these risks to allow the use of spring hydrants without backflow protection.

## **Material Considered**

- Material submitted by the applicant with "Form 10" appeal notice to the Tribunal;
- Information Notice dated 3 May 2007 from Gold Coast City;
- Verbal submission from Gold Coast City Council at the hearing;
- The *Integrated Planning Act 1997*;

- The *Plumbing and Drainage Act 2002*;
- The *Standard Plumbing and Drainage Regulation 2003*; and
- Referenced Australian Standards.
- Further material requested to be provided by the Tribunal relating to a more detailed risk assessment submitted by the applicant.

### **Findings of Fact**

- An Information Notice not to approve the installation of spring type fire hydrants and require the installation of pillar type fire hydrants with a check valve on the riser for plumbing and drainage work was issued by the Gold Coast City 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.

- *“There is no requirement to provide fire hydrants for a Class 1a building contained in the Building Code of Australia (BCA)”*. This statement is correct.
- *The Gold Coast City Council erred in requiring a fire hydrant installation under the provisions of the Gold Coast Planning Scheme and that the Council may only make a planning scheme instrument or local law for plumbing matters outside the scope of the Standard Plumbing and Drainage Regulations 2003*. This matter is not relevant at this time as it is understood the developers *withheld* determined that they would provide a form of fire hydrant protection to the development. To clarify this, hydrants can only be required to be provided to serve Class 1a dwellings in this type of development if they are required to be installed as a condition of the development approval or are required to be provided under a Code specified in the Gold Coast Planning Scheme applicable to the development at the time the development was approved under the Planning Scheme by Council. This issue did not need to be determined as spring hydrants have been provided by the developer.
- *“AS 2419.1 indicates acceptance of spring hydrants.”* AS2419.1 allows the use of street hydrants as an alternative to providing an on site fire hydrant. The consultant appears to have assumed that all street hydrants are “spring” hydrants. There are some situations, albeit limited, where street hydrants are not inground spring hydrants. Further to this, Clause 3.5.1 of AS2419.1 specifies how fire hydrants are to be installed, including specifying that the hydrant outlet should be not less than 750mm and not more than 1200mm above the ground. An inground hydrant would not meet this specification.
- *“The Gold Coast City Council erred in considering the provision of fire hydrants to constitute plumbing and drainage work”*. The consultant is correct in stating that the need to provide fire services is determined by the BCA. However, the applicant has not considered that for community developments consisting of groups of housing on one allotment where there are no specifications in the BCA local governments may require the installation of fire hydrants under other instruments.

The design of fire mains, flows and pressures and also fire sprinkler systems is not covered by the *Standard Plumbing and Drainage Regulation 2003* however the installation of pipework and construction of this work does come under the *Standard Plumbing and Drainage Regulation 2003* as does the need for backflow protection. This is specified in Section 11 of the *Standard Plumbing and Drainage Regulation 2003*.

- “*The Gold Coast City 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, the Councils 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.
- “*The Gold Coast City Council does not have jurisdiction to regulate the design of water services, as this is specifically addressed in AS3500*”. The *Plumbing and Drainage Act 2002* Section 89 requires local government to administer the *Standard Plumbing and Drainage Regulation 2003*. The *Standard Plumbing and Drainage Regulation 2003* references AS3500.1 as part of the applied provisions in Schedule 5. Gold Coast City Council as a local government does have jurisdiction.
- “*The Gold Coast City Council erred in not accepting the provision of spring hydrants as a premises group main on the merits*”. This aspect is the matter under consideration.

## **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 the Gold Coast City 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 Gold Coast City 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 the Gold Coast City 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:

- (a) avoid the likelihood of contamination of drinking water within both the water service and the Network Utility Operators supply;
- (b) Not relevant;
- (c) avoid the likelihood of leakage or failure including uncontrolled discharges;
- (d) Not relevant;
- (e) allow adequate access for maintenance of mechanical components and operational controls; and
- (f) 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:

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

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

The risk assessment has not included 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 has not included 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 the Council 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 and considered by the Gold Coast City Council will, with amendments for shutting down sections of the internal water service, would satisfy 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.

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**David Kay**  
**Building and Development**  
**Tribunal Referee**  
**Date: 23 July 2007**

## **Appeal Rights**

Section 4.1.37. of the *Integrated Planning Act 1997* 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 Local Government, Planning, Sport and Recreation  
PO Box 15031  
CITY EAST QLD 4002  
**Telephone (07) 3237 0403 Facsimile (07) 32371248**