

Development Adjacent to Water, Sewer and Stormwater Mains Policy

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Strategic Pillar	Connection	
Responsible Branch	Utilities	20 December 2019

Development Adjacent to Water, Sewer and Stormwater Mains Policy

1. OUTCOMES:

- 1.1 The objectives of this policy are to:
- protect Council's mains assets from superimposed loads;
 - provide clearances to services to allow access for their maintenance;
 - maintain water supply;
 - prevent the discharge of sewage from blocked or damaged sewer mains entering buildings;
 - maintain the stability of buildings constructed over or adjacent to mains during periods of
 - maintenance on the main; and
 - maintain overland flow paths for stormwater drainage.

2. POLICY:

- 2.1 All structures should be sited clear of Council's mains infrastructure wherever possible. Where a structure is intended to be sited over a main or within its zone of influence, the main should be diverted clear of the structure at the expense of the proponent. Where the main coincides with an overland stormwater flow path the diversion shall also provide an alternative flow path.
- 2.2 In the event that Council considers that diversion of the main cannot be achieved Council may grant approval for a structure to be constructed over a sewer or stormwater main or within the zone of influence of the main where the following circumstances can be met as set out in Section 6 of this Policy. Acceptance or refusal of the structure is at Council's sole discretion.

3. SCOPE OF THE POLICY:

- 3.1 Queanbeyan-Palerang Regional Council is the Water and Sewer Authority for the Queanbeyan-Palerang local government area and provides a network of water, sewer and stormwater mains within the LGA.
- 3.2 This policy provides guidelines for the assessment of proposals to develop land in close proximity Council's mains assets within the above-mentioned urban areas of the LGA.

4. DEFINITIONS:

- 4.1 **Trunk sewer main** – a sewer main that services more than 100 tenements or is 225 mm or greater in diameter.
- 4.2 **Trunk stormwater main** – a main that is part of a stormwater system that conveys runoff from an upstream catchment (other than interallotment drainage), a road or is 600 mm or greater in diameter.
- 4.3 **Zone of Influence** – the area below a structure subject to load from the structure, measured at a 45° downward angle from the base of the structure or from the base of the pier if the structure is supported by a pier and beam footing. (Refer to Figure 1)
- 4.4 **AEP** – annual exceedance interval as defined in *Australian Rainfall and Runoff 2016* Commonwealth of Australia (Geoscience Australia) 2016

Development Adjacent to Water, Sewer and Stormwater Mains Policy

5. LEGISLATIVE OBLIGATIONS AND/OR RELEVANT STANDARDS:

- 5.1 This policy has been developed to meet industry best practice and legislation, including:
- Local Government Act 1993
 - Public Works Act 1912
 - Water Management Act 2000
 - Conveyancing Act 1919
 - New South Wales Code of Practice Plumbing and Drainage 2006
 - Australian Standard AS/NZS 3500 – Plumbing and Drainage
 - 2005 National Plumbing and Drainage Code
 - Sewerage Code of Australia (WSA 02 - 2002 Version 2.3)
 - Water Supply Code of Australia (WSA 03 - 2011, Version 3.1)
 - Building Code of Australia
 - Guideline for Plumbing & Drainage: Installing Code Compliant Work and Performance Solutions V.1.1.2, July 2017

6. CONTENT:

- 6.1 In certain circumstances Council may permit structures to be built within the 'zone of influence' (see figure 1) where the following conditions can be met:
- 6.2 Class 1 Building (Residential Dwelling) and Class 2 Buildings (Residential Flat Buildings) Building over or within the zone of influence of a water main, sewer main or stormwater main is not permitted.
- 6.3 Class 3 – 9 Buildings (Commercial and Industrial)
- 6.3.1 Building over or within the zone of influence of a water main is not permitted.
- 6.3.2 Building over a sewer or stormwater main may be permitted subject to -
- The main not being defined as a trunk stormwater or trunk sewer main;
 - The main is not located within an easement identified on the certificate of title of the subject land;
 - A Maintenance Hole can be provided (or exists) each side of the proposed structure within 5 metres and not closer than 2 metres of the outer surface of the structure, with a maximum spacing between maintenance holes of 60 metres to be achieved;
 - For a stormwater main, an overland flow path can be provided around the building that:
 - Can safely accommodate flow in a 1% AEP event
 - Is dedicated as an easement for the drainage of water in Council's favour on the certificate of title; and
 - Is free-flowing and free of permanent and temporary obstructions (e.g. an internal road);
 - A stormwater main covered by the building must be mass concrete encased by a minimum 150mm under, on both sides and on top of the pipe measured at the pipe collar, using concrete of minimum strength 20MPa at 28 days.
 - A sewer main covered by the building must be replaced in ductile iron pipes with sulphur resistant cement lining;
 - A sewer main covered by the building must be renewed at a size to suit an ultimate capacity to be determined by Council;
 - The private drainage connection point to the sewer main must be located (or relocated onto) the section of the sewer main that will not be located under the building.

Development Adjacent to Water, Sewer and Stormwater Mains Policy

- 6.4 Class 10 Buildings (Detached Garages, Carports, Detached Sheds, Pergolas etc but excluding Swimming Pools, Attached Garages and Attached Sheds)
- 6.4.1 Building over or within the zone of influence of a water main, sewer main or stormwater main is not permitted.
- 6.5 Swimming Pools, Attached Garages, Attached Sheds
- 6.5.1 Swimming Pools, Attached Garages and Attached Sheds are not permitted to be built over or within the zone of influence of a water, sewer or stormwater main or within an easement identified on the certificate of title of the subject land.
- 6.5.2 Swimming pools shall be provided where necessary with piercing so as not to impose load on any main, with the piercing to be certified by a structural engineer.
- 6.6 Paved Areas, Driveways and Car Parks
- 6.6.1 Paved areas, driveways and car parks constructed in concrete or asphalt are allowed over water, sewer and stormwater mains provided the minimum covers listed under Earthworks are maintained.
- 6.6.2 Where any material other than those listed above are used, Council will not be liable to reinstate the area with any material other than concrete or asphalt
- 6.7 Earthworks (Cut and Fill)
- 6.7.1 No cut or fill will be permitted over water mains.
- 6.7.2 For any sewer or stormwater main any cut is to maintain the following minimum covers over the top of the pipe –
- 600 mm in non-trafficable areas;
 - 750 mm in trafficable areas that will be unsealed.
- 6.7.3 Any proposal to reduce cover over sewer or stormwater mains to below the above nominated values is subject to approval by Council. If approval is granted it shall be subject to a minimum cover of 450 mm being maintained above the top of the pipe, replacement of any existing sewer main(s) in ductile iron pipes with sulphur resistant cement lining, replacement of stormwater pipes with a higher class pipe and adjustment of access chambers where necessary to permit access from ground level.
- 6.7.4 For any sewer or stormwater main, fill is permissible subject to –
- the final depth over the main not exceeding the recommended maximum cover for the type of pipe / class/ bedding / cover;
 - access chambers being raised if necessary to maintain at least 150 mm height above the adjacent fill level;
 - where a sewer main property junction on a vacant lot is within the fill area, the connection point shall be raised to maintain a maximum depth to the connection of 2 metres;
 - For a stormwater main, an overland flow path can be provided that:
 - Can safely accommodate flow in a 1% AEP event
 - Is dedicated as an easement for the drainage of water in Councils favour on the certificate of title; and
 - Is free-flowing and free of permanent and temporary obstructions (e.g. an internal road);
- 6.8 Retaining Walls
- 6.8.1 Retaining walls shall not be constructed within an easement identified on the certificate of title of the subject land and/or within 1.5 metres of the outer edge of a main, with the

Development Adjacent to Water, Sewer and Stormwater Mains Policy

exception that if it forms part of a wall constructed transverse to a main a crossing of the main is allowable subject to –

- A footing being provided for the width of the easement to provide bridging of the main, with support piers constructed for the footing to the depth of the main;
- For a stormwater main, an overland flow path can be provided around the retaining wall that:
 - Can safely accommodate flow in a 1% AEP event
 - Is dedicated as an easement for the drainage of water in Councils favour on the certificate of title; and
 - Is free-flowing and free of permanent and temporary obstructions (e.g. an internal road);

6.8.2 Retaining walls constructed adjacent to a main shall be provided with a footing and support piers to a depth so that the main is positioned outside the zone of influence of the piers.

6.9 Fencing

6.9.1 Lightweight fencing, (such as palings, *colorbond*) is permitted to cross a main subject to:

- members being secured by bolts allowing easy disassembly
- piers are to be located clear of any easement or outside the zone of influence of the main and at least 1.5 metres from the centreline of the main;
- any existing stormwater overland flow path must be maintained by the use of perforated materials (such as lattice).

6.10 Trees and Landscaping

6.10.1 Trees shall not be planted within an easement identified on the certificate of title of the subject land or within 2.5 metres of the centreline of any main.

6.10.2 Small shrubs (height < 1.5 metres) and vegetation may be planted within an easement identified on the certificate of title of the subject land, subject to –

- Plant species selected must be chosen from Council's list of appropriate species;
- Should a problem occur with the water, sewer or stormwater main requiring excavation to rectify the main, the owner of the property is to bear all costs associated with reinstating any landscaping disturbed.

6.10.3 All care will be taken to protect existing landscaping and trees on private property, however, Council will not be liable for rectification of damage caused by maintenance and renewal works or any other planned or unplanned works on Council assets.

6.11 Design Criteria

6.11.1 Where Council grants approval to construct over or adjacent to a water, sewer or stormwater main the following design criteria shall apply –

6.11.2 In all cases where a structure is permitted over or adjacent to a main, the footings and foundations in proximity to the main shall be located and constructed to ensure that superimposed loads of the building are not transferred onto the main. The required footing construction technique is pier and beam footing construction and the footing shall be designed and certified by a practicing structural engineer. The pier must be designed to support the structure without lateral support to permit excavation of the main.

6.11.3 Any design and/or construction shall incorporate appropriate consideration of future maintenance activities and ensure that Council retains sufficient access to permit the carrying out of Council duties

Development Adjacent to Water, Sewer and Stormwater Mains Policy

6.11.4 Any damage to the main caused by the developer/applicant or their agent during the execution of works to comply with the requirements of this policy must be repaired at the developer/applicant's expense.

6.12 Documentation

6.12.1 Full engineering details shall be submitted to Council for assessment and approval prior to the commencement of construction.

6.12.2 A certified works as executed plan shall be submitted upon completion of construction.

6.12.3 A statement from the proponent acknowledging that the proponent shall maintain the structure in good repair at their own expense.

7. RISK ASSESSMENT

7.1 This policy has been developed giving regard to the need to balance the potential risk of damage to infrastructure with reasonable building permissibility.

8. PERFORMANCE INDICATOR:

8.1 The effectiveness of this policy will be measured by:

- The extent that maintenance of Council's mains infrastructure is impacted;

Figure 1

