

#### 4 Stormwater Drainage Guidelines for Building Developments

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<b>Outcome</b>	<i>We plan for our future growth</i>
<b>Strategy</b>	<i>Facilitate quality development that encourages a range of housing types, employment, recreation and lifestyle opportunities</i>
<b>Service Activity</b>	<i>Provide engineering advice for development applications, strategic planning and policy development</i>

#### Executive Summary

The purpose of this report is to seek Councils endorsement of the final version of the updated Stormwater Drainage Specification for Building Developments. The report recommends that the document be endorsed.

#### Background

Council, at its Policy Review Committee on 14 October 2013, considered a report on "Stormwater Drainage for Building Developments (Working Draft)". The report advised that a new specification had been developed to provide a contemporary standard for the design and construction of stormwater drainage for development associated with buildings such as single dwellings, multi-unit housing and the like.

At its meeting on 14 October 2013 Council resolved that:

- 1. The information contained in the report on Stormwater Drainage for Building Developments (Working Draft) be received.*
- 2. Council endorse the Stormwater Drainage for Building Developments (Working Draft) for the purpose of exhibition and consultation with the industry.*
- 3. The Stormwater Drainage for Building Developments (Working Draft) be applied to civil works associated with Development Applications lodged after Council's endorsement of the document.*
- 4. References and information in Penrith Development Control Plans 2006 & 2010 and Council's Guidelines for Engineering Works for Subdivisions and Developments Part 1: Design be updated to be consistent with the adoption of Stormwater Drainage for Building Developments (Working Draft).*
- 5. At the conclusion of the exhibition a report be presented to Council for adoption of the final document.*

Following the resolution of Council's Policy Review Committee Meeting on 14 October 2013, the Stormwater Drainage for Building Developments (Working Draft) was made available on Council's website for exhibition and has been used as one of the engineering policies and guidelines in the assessment of development applications associated with the stormwater management issues. Since that time the specification has been welcomed by the industry. The working draft provided the industry a more transparent, uniformed and consistent approach in assessing the stormwater management issues of all building developments.

## Current Situation

The Stormwater Drainage for Building Developments (Working Draft) provides further clarity and technical details to the objectives and controls contained within Penrith Development Control Plans 2014. Through its implementation over the past couple of years, Council has received feedback with regard to several elements in the document, including but not limited to drainage design, on-site detention and stormwater disposal.

In this regard, as part of the periodically review and the outcomes of feedback from stakeholders, the working draft has been revised and updated to offer better guidance and certainty to the development industry and to reflect contemporary standards for stormwater management of all building developments

Some of the key items that have been revised and integrated into the revised working draft:

- Submission requirements
- Overland flow flooding
- Easements
- Basement drainage
- Design of On-site Detention (OSD) systems
- OSD Certification

This revised working draft was provided to internal stakeholders and consultants for their comment and feedback. Two submissions were received, one of which is from internal stakeholder and the other from an engineering design consulting firm. The issues raised are summarised as below.

- Reduction in OSD volumes in WSUD measures

It is noted that significant investigation works and computer modelling will be required to determine the extent of reduction. As such, it is recommended that this issue is better to be addressed when a single document integrating the design of OSD systems and WSUD measures is to be prepared.

- Flood Hazard

Suggestion to have greater flexibility to allow developments on sites where flood depth greater than 0.8m is not supported because NSW Floodplain Development Manual 2005 indicates that for flood depth greater than 0.8m, the provisional hydraulic hazard categories will be above 'Low Hazard' and there is likelihood that such depth will damage light structures, creating difficulty to have flood-safe escape route. This matter is being dealt with through the finalisation of several urban flood studies and associated risk management plans.

- Minor technical design issues of stormwater drainage and OSD System

Suggestion to have more flexibility in OSD design, such as orifice design, OSD storage, stormwater drainage design etc. This matter has been considered and where relevant, amendments were made to the specification.

As a result of consultation, some minor changes to the technical specification have been made and incorporated into the final document for Council's endorsement. The changes made allow more flexibility to the OSD design for building developments and promote best industry practice. In addition, the requirements for OSD for dual occupancies has been amended such that Council does not require mandatory OSD for Dual Occupancies as with the previous working draft.

The final document will be retitled 'Stormwater Drainage Specification for Building Developments' in order to supersede the existing working draft and forms part of a suite of

engineering guidelines, policies and specifications that have been developed or are currently being worked on by the Development Engineering Team.

A copy of Stormwater Drainage Specification for Building Developments is attached.

### **Conclusion**

Stormwater Drainage Specification for Building Developments will clarify Council's stormwater drainage requirements for building developments and hence provide better and clear guidance, with certainty and flexibility to the development industry.

It is intended that the policy will be reviewed periodically to embrace new methodologies and technologies and to ensure that it remains contemporary.

### **RECOMMENDATION**

That:

1. The information contained in the report on Stormwater Drainage Guidelines for Building Developments be received.
2. Council endorse the Stormwater Drainage Specification for Building Developments.
3. The Stormwater Drainage Specification for Building Developments be applied to civil works associated with Development Applications lodge after Council's endorsement of the document.
4. Reference and information in Penrith Development Control Plans 2014 and Council's Guidelines for Engineering Works for Subdivisions and Developments Part 1: Design be updated to be consistent with the adoption of Stormwater Drainage Specification for Building Developments.
5. The final specification be reviewed by Engineering Services periodically with only substantial amendments to be reported to Council.
6. Council Officers write to our partners within the industry that provided feedback and commentary, thanking them for their time and input.

### **ATTACHMENTS/APPENDICES**

- |  |             |                         |
|--|-------------|-------------------------|
| 1. Stormwater Drainage Specification for Building Developments | 75<br>Pages | Attachments<br>Included |
|--|-------------|-------------------------|

Councillor Ross Fowler OAM  
Councillor Aaron Duke  
Councillor Todd Carney  
Councillor Ben Price

Councillor Marcus Cornish  
Councillor Joshua Hoole

### **3 Draft Public Benefit Policy**

PRC61 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Jim Aitken OAM

That:

1. The information contained in the report on Draft Public Benefit Policy be received.
2. Council adopt the Public Benefit Policy as amended and attached, effective on the date the LEP amendment to insert an Incentives Clause within the Penrith LEP 2010 is made.
3. The General Manager be granted delegation to make minor changes to the Policy prior to the commencement of the Policy.

### **4 Stormwater Drainage Guidelines for Building Developments**

PRC62 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Todd Carney

That:

1. The information contained in the report on Stormwater Drainage Guidelines for Building Developments be received.
2. Council endorse the Stormwater Drainage Specification for Building Developments.
3. The Stormwater Drainage Specification for Building Developments be applied to civil works associated with Development Applications lodge after Council's endorsement of the document.
4. Reference and information in Penrith Development Control Plans 2014 and Council's Guidelines for Engineering Works for Subdivisions and Developments Part 1: Design be updated to be consistent with the adoption of Stormwater Drainage Specification for Building Developments.
5. The final specification be reviewed by Engineering Services periodically with only substantial amendments to be reported to Council.
6. Council Officers write to our partners within the industry that provided feedback and commentary, thanking them for their time and input.

## **OUTCOME 7 - WE HAVE CONFIDENCE IN OUR COUNCIL**

### **6 Councillor Working Parties**

Councillor Mark Davies left the meeting, the time being 8:16pm and did not return.

PRC63 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Ross Fowler OAM

That: