What is OSD?

On-site stormwater detention (OSD) is a method to control the peak flow of stormwater generated from a site’s impervious surfaces, such as rooftops and driveways. The stormwater is temporarily stored to control its discharge into the street drainage system.

Key elements of our revised OSD policy

All OSD systems are to include:

- a storage area which may be above or below ground but noting that above ground storages may be frequently inundated and will need to be designed accordingly
- a discharge control pit which contains 2 or more orifice plates which limit the peak flow of runoff. One orifice plate to manage very frequent everyday storm events and the second orifice plate is to manage larger, rarer storm events which could otherwise increase flood risk
- an overflow, bypass or fail safe mechanism. This is often in the form of a bypass or overflow weir.

Our WSUD Standard Drawings illustrate the design requirements for various types of OSD systems. These are available on our website.

This fact sheet summarises Blacktown City Council’s on-site stormwater detention (OSD) requirements.

Overview

Development of land for housing, industrial and business purposes typically results in an increase in impervious surfaces, such as buildings and roads. During a storm, the rainwater cannot infiltrate the ground, resulting in increased runoff and peak flows (that can cause flooding).

Our revised OSD policy not only controls stormwater peak flows, but also controls frequent everyday flows to protect our waterways from erosion. We have changed which developments require OSD systems and introduced a Deemed to comply solution using rainwater tanks, for smaller development.

In the past OSD systems have focussed just on reducing flood risk. We have revised our OSD policy to ensure that it delivers benefits to both the community and the environment. This is achieved by limiting peak discharges of stormwater from a development site during rare storm events as well as frequent everyday storm events.
When on-site stormwater detention is required?

On-site stormwater detention is required in some areas that aren’t served by regional detention basins. When developing land, only some types of development need to install OSD systems refer to Figure 1.

Our on-line Deemed to Comply Tool (S3QM) will help developers, and their consultants:

- establish if their proposed development is located within a catchment which requires on-site detention
- assess if the type of development requires OSD.

The link to the S3QM Model is available on our website.

Where temporary on-site stormwater detention is required

Temporary OSD may be required in the North West Growth Centre and the Western Sydney Employment Area if regional flood detention measures have not been built.

If you are required to install temporary OSD control measures this will be discussed at the pre-lodgement meeting with Council staff.

### Within the North West Growth Centre & Western Sydney Employment Area Catchment

<table>
<thead>
<tr>
<th>Subdivision of land</th>
<th>R3 - Attached housing</th>
<th>R3 (other than attached housing)</th>
<th>Development of business and industrial land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alterations and additions with a development footprint &lt; 150m²</td>
<td>Temporary OSD may be required – contact Council to confirm</td>
<td>Not required</td>
<td>Temporary OSD may be required – contact Council to confirm</td>
</tr>
<tr>
<td>Other residential development</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Within the Hawkesbury Nepean Catchment

<table>
<thead>
<tr>
<th>Subdivision of land</th>
<th>Other residential development</th>
</tr>
</thead>
<tbody>
<tr>
<td>R3 - Attached housing</td>
<td>Development of business and industrial land with a footprint of &lt;500m² in area</td>
</tr>
<tr>
<td>R3 (other than attached housing)</td>
<td>Deemed to Comply Solution (S3QM) Available (rainwater tank)</td>
</tr>
<tr>
<td>R4</td>
<td>OSD not required</td>
</tr>
</tbody>
</table>

### Within the Parramatta River OSP Catchment

<table>
<thead>
<tr>
<th>Subdivision of land</th>
<th>R3</th>
<th>R4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of business and industrial land with a footprint &gt; 150m²</td>
<td>OSD required</td>
<td>OSD required</td>
</tr>
<tr>
<td>Other residential developments may be subject to OSD – refer to DCP Part J for more information</td>
<td>May be subject to OSD</td>
<td>May be subject to OSD</td>
</tr>
<tr>
<td>Residential alterations and additions with a development footprint &gt; 150m²</td>
<td>OSD not required</td>
<td>OSD not required</td>
</tr>
<tr>
<td>Development of business and industrial land with a footprint &lt; 150m²</td>
<td>OSD not required</td>
<td>OSD not required</td>
</tr>
</tbody>
</table>

Figure 1: OSD Requirements in each catchment.
Our deemed to comply OSD solution caters for smaller developments

Council has developed a deemed to comply OSD solution that applies to:

- industrial and business developments with a development footprint between 150m² and 500m².
- attached residential housing (R3) developments.

This solution involves the use of a typical rainwater tank:

- with a minimum volume equal to BASIX requirement plus an additional 1 kL of air space.
- that is connected to toilet, laundry, outdoor taps/irrigation (if present) and hot water supply.

The deemed to comply OSD solution must be designed to meet our DCP and WSUD Standard Drawings.

Designing an OSD system for your development

The OSD design approach divides the detention space into 2 zones:

- The first zone will be used to control everyday rainfall events up to the 1 in 1.5 year storm event.
- The second zone will be used to store runoff from events that occur less often (1 in 1.5 years up to the 1 in 100 year storm event).

Each zone must have its own orifice plate.

Our WSUD Standard Drawings provide detailed design requirements. Our on-line Deemed to Comply Tool (S3QM) will size the appropriate OSD system for your development. If you do not use the Tool you will need to provide detailed calculations with your DA to demonstrate how your proposal complies with the requirements set out in the Standard Drawings and our DCP.

Positive covenant

A Positive Covenant for ongoing operation and maintenance of OSD measures must be registered with our Land and Property Information section.

Further information

The information in this fact sheet should be read in conjunction with our Development Control Plan Part J. This fact sheet does not supersede any controls listed within Part J.

In addition, the following documents may provide assistance:

- Blacktown City Council WSUD Standard Drawings 2017
- Blacktown Council’s on-line Deemed to Comply Tool (S3QM)
- Blacktown City Council WSUD Handbook

If you have any queries, please contact us on 9839 6000.