



# Central Coast Council

## Stormwater Detention Policy

FEBRUARY 2022

Document Endorsement	
Responsibility:	<p>It is the responsibility of the Director Infrastructure Services to implement this Policy and review its content with the Council.</p> <p>It is the responsibility of the Engineering Group to maintain this document in the corporate document framework.</p>
Minute Reference:	
Council Meeting Date:	
Previous Plan Replaced:	This is the first Stormwater Detention Policy, Version 1.0
Date of Commencement:	
Publication of Policy:	This Policy is publicly available on the Council's website ( <a href="http://www.centralcoast.tas.gov.au">www.centralcoast.tas.gov.au</a> )

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## PURPOSE

This Policy details the safeguards enforced by the Council to ensure that stormwater runoff generated by new developments does not adversely impact downstream properties for all storm events up to 100-year ARI (1% AEP) event inclusively.

## DEFINITIONS

Annual Exceedance Probability (AEP)	The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.
Average Recurrence Interval (ARI)	The average or expected time period between exceedances of a given rainfall total accumulated over a given duration. It is implicit in this definition that the periods between exceedances are generally random.
Catchment	The land area draining to a point of interest.
Council	Means the Central Coast Council, being a body corporate constituted as a municipal council under the <i>Local Government Act 1993</i> .
Discharge	Rate of flow of stormwater expressed in unit volume per unit time (litres per second).
Drainage system	Comprises all components of stormwater infrastructure from the legal point of stormwater discharge to the receiving water body. Includes both constructed assets (pipes, culverts, overland flow paths, roadways, kerb and gutters) and natural assets (waterways and creeks).
On-site stormwater detention (OSD)	Temporary storage and controlled discharge of stormwater runoff intended to reduce the peak flow from a site.
Overland flow	The surface flow of stormwater runoff that occurs when the volume of runoff exceeds the capacity of the piped drainage system.
Runoff	The portion of rainfall that does not infiltrate into the soil, resulting in the presence of surface water.

## SCOPE

This Policy applies where:

- A development increases the impervious area of a site.
- The existing drainage system is unable to accommodate an increase in stormwater discharge from the development.
- The development is within or adjacent to urban areas. The details of the catchments can be found in Council's Stormwater System Management Plan (SSMP).

## CONTEXT

*Australian Rainfall and Runoff* and *Australian Standard AS3500.3:2021 Plumbing and Drainage* establish that stormwater runoff in all storm events up to and including the 100-year ARI (1% AEP) storm event must be conveyed safely and not present a hazard to people or cause significant damage to property.

The Council has responsibility under the *Local Government Act 1993*, *Urban Drainage Act 2013* and *Land Use Planning and Approvals Act 1993* to ensure that new developments within the municipal area do not adversely impact on the performance of the local stormwater drainage system or cause an unreasonable flow of water on to downstream properties in all storm events up to and including the 100-year ARI (1% AEP) storm event.

This will be achieved by ensuring that stormwater detention systems are incorporated into new developments to reduce the peak flow of stormwater from the site. The detention system reduces the peak flow by temporarily storing stormwater runoff within the development site while discharging to the Council drainage system at a controlled rate.

The need for a stormwater detention system will be assessed by the Council upon receipt of a development application.

## POLICY

### 5.1 Stormwater Detention Requirement

On-site stormwater detention is required where:

- a development increases the impervious area of a site;
- the existing drainage system is unable to accommodate an increase in stormwater discharge from the development; and
- there is no overland flow path available.

## 5.2 Exemptions from On-site Stormwater Detention Requirement

The Council may consider waiving a requirement for OSD where:

- The downstream drainage system has been upgraded to accommodate the increase in runoff from the site for all storm events up to and including the 100-year ARI (1% AEP) event.
- The total impervious area of a lot, including the new development, does not exceed 450m<sup>2</sup>.
- The development application is for a single dwelling on a lot.
- The development application is for a multiple unit development of no more than two units

For specific situations, detention may not be required if the applicant can demonstrate to the satisfaction of the Council's Director Infrastructure Services that provision of OSD on the subject site would not reduce the adverse impacts of flooding on downstream roads, properties and watercourses. The applicant must model the total catchment containing the site at its full development potential while maintaining the existing drainage system. It is anticipated that this may apply at the lower end of the major catchments where delayed release of runoff may worsen the flood peak.

## 5.3 Design Objectives

The OSD system must:

- Be provided to limit the peak rate of piped stormwater discharge from the development to that generated for the lot developed to a level of 40% impervious for a 5% AEP event.
- Be designed to accommodate the maximum volume generated for the actual percentage impervious for the fully developed site for a 5% AEP event.
- Be designed to accommodate the maximum volume generated for the actual percentage impervious for the fully developed site up to the 1% AEP event, unless it can be demonstrated that either a suitably designed overland flow path or an alternative on-site storage mechanism is available.
- Provide sufficient storage to ensure peak flow rates at any point within the downstream drainage system do not increase as a result of the development during the design storm event [up to and including the 100-year ARI (1% AEP) event], unless the downstream drainage system has been designed to accommodate an increase in stormwater discharge from the site.
- Drain within 72 hours to ensure the storage volume is available for a subsequent storm event.

It is desirable that OSD be integrated into the overall design of the development so that adequate storage areas are included in the initial stages of the site design/building design.

#### 5.4 Design Requirements

OSD designs shall be prepared and submitted by a suitably qualified engineer. The design details should include but are not limited to the following:

- design parameters
- adopted storage system
- storage volumes
- flow control outlet.

The underground storage systems must be watertight.

#### 5.5 Pump-out System

Pump-out systems for roof and surface water are not permitted as an OSD system and any plans incorporating such a system for disposal of stormwater will be rejected.

The Council will permit basement level pump-out systems for disposal of seepage water and runoff from access ramps to the basement. However, this requires comprehensive design justifying how the 100-year ARI event will be catered for.

#### 5.6 Construction

The OSD installation must be constructed by a qualified plumber, and a certification by an engineer which includes as-constructed documents and plans to be provided prior to the issue of the Certificate of Occupancy.

#### 5.7 Maintenance Requirements

The property owner is responsible for the operation, maintenance and replacement of the OSD system. Where the OSD system is located on common property within a multi-dwelling site, the body corporate is responsible for the operation, maintenance and replacement of the system.

The Council recommends that OSD systems are cleared of debris and sediment at least once per year to ensure correct operation.

The clearing of below ground storage facilities should be conducted in accordance with the requirements and risk control measures specified in AS2865-2009 Confined Spaces.

## ADMINISTRATIVE UPDATES

It is recognised that, from time to time, circumstances may change leading to the need for minor administrative changes to this document. Where an update does not materially alter this document, such a change may be made administratively. Examples include a change to the name of a Council Department, and a minor update to legislation which does not have a material impact. However, any change or update which materially alters this document must be by resolution of the Council.

## REVIEW

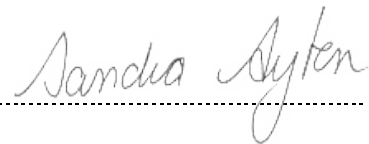
This Policy will be reviewed every three years, unless organisational and legislative changes require more frequent modification.

SANDRA AYTON  
GENERAL MANAGER

Date of approval: 21 / 2 / 2022

Minute Ref No. 55/2022

Approved by:

  
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