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| Name: | Stormwater Assessment Procedure | |
| Procedure code: | | |
| Approved by MANEX/Manager: | Date: 14 July 2021 | By: |
| Last review date: | | |
| Review timeframe: | 4 Years | |
| Next scheduled review date: | July 2025 | |
| Related legislation: | Environmental Planning & Assessment Act 1979 Coastal Management Act 2016 | |
| Association policies/documents: | Stormwater Management Policy Guidelines for Water Sensitive Design Strategies 2019 | |
| Responsible division: | Planning & Natural Systems | |

Purpose

This procedure:

- Provides detailed guidance on the application of MidCoast Council's Stormwater Management Policy (the Policy) to development.
- Sets out the information requirements for development proposals affected by the Policy, including subdivision, commercial, manufactured home estates, multi-dwelling, seniors living, industrial and intensive plant agriculture intensive livestock agriculture and other proposals identified by MidCoast Council as having a potential impact on the water quality of receiving waters
- Ensures a consistent approach to assessing the impact of development on stormwater quality and quantity.

Related documents

MidCoast Council Stormwater Management Policy

MidCoast Council Guidelines for Water Sensitive Design Strategies

MidCoast Council – Basic 'How To' Guide for Small Scale Stormwater Quality Model (S3QM)

MidCoast Council – Water Sensitive Design Fact Sheets

Water by Design – Technical Design Guidelines

Process

1.0 TARGET REDUCTION LOADS

All development covered by the Policy is required to meet water quality targets to demonstrate that it meets the Policy objectives. Development must meet the relevant Stormwater Quality Targets set-out in **Table 1** below, except in the instance where a MidCoast Council approved Stormwater Strategy or Drainage Plan specify the targets to be met for identified parcels of land.

Table 1. Stormwater Quality Targets Table

| Site Characteristics | Target Reduction Loads (based on increased pollution generated from development without treatment) | | | |
|---|--|--|------------------|----------------|
| | Gross pollutants | Total Suspended Solids | Total Phosphorus | Total Nitrogen |
| SUBDIVISION | | | | |
| <i>(Not including boundary adjustments, strata subdivisions, subdivision resulting in lots greater than 40ha, Minor subdivision (subdivision that results in up to 3 lots) where the lots are greater than 1ha)</i> | | | | |
| <ul style="list-style-type: none"> ➤ Lots over 2500m² in size where the percentage of existing impervious surface is less than 10% of the area. ➤ Lot size is calculated over the parent lot prior to subdivision. This means development cannot be broken down into stages for the purposes of measuring the 2,500m² threshold. | 90% | Neutral or Beneficial Effect on Water Quality – meaning loads of pollutants from future development must be equivalent to or less than that from the existing land use prior to development. | | |
| <ul style="list-style-type: none"> ➤ Lots less than 2,500m² in size or where the percentage of existing impervious surface is greater than 10% of the area (regardless of lot size). ➤ Subdivision located within the Coastal Drainage Areas (refer to MidCoast Council Catchment Maps). <i>Where subdivision is partially located within a Coastal Drainage Area, targets are to be determined in consultation with MidCoast Council Staff.</i> | 90% | 80% | 60% | 45% |
| <ul style="list-style-type: none"> ➤ Any subdivision located within the catchment of coastal lagoons | Neutral or Beneficial Effect on Water Quality - meaning loads of pollutants from future development must be equivalent to or less than that from the existing land use prior to development. | | | |
| INTENSIVE LIVESTOCK AGRICULTURE AND INTENSIVE PLANT AGRICULTURE | 90% | 80% | 60% | 45% |
| ALL OTHER NON-RESIDENTIAL DEVELOPMENT – excluding Subdivision and Intensive Livestock Agriculture or Intensive Plant Agriculture | | | | |
| Lots over 2500m ² in size where the percentage of existing impervious surface is less than 10% of the area. | 90% | Neutral or Beneficial Effect on Water Quality - meaning loads of pollutants from future development must be equivalent to | | |

| | | | | |
|--|------------|---|------------|------------|
| <p>➤ Lot size is calculated over the parent lot prior to subdivision. This means development cannot be broken down into stages for the purposes of measuring the 2,500m² threshold.</p> | | <p>or less than that from the existing land use prior to development.</p> | | |
| <p>➤ Lots less than 2,500m² in size or where the percentage of existing impervious surface is greater than 10% of the area (regardless of lot size).</p> <p>➤ Development located within the Coastal Drainage Areas. Where development is partially located within a Coastal Drainage Area, targets are to be determined in consultation with MidCoast Council Staff.</p> | <p>90%</p> | <p>80%</p> | <p>60%</p> | <p>45%</p> |

2.0 DEVELOPMENT TYPES & APPLICATION REQUIREMENTS

2.1 SUBDIVISIONS

2.3.1 Major Subdivision - results in over 3 Lots

A Water Sensitive Design (WSD) Strategy including a MUSIC model will be required to address water quality over the parent lot for the entire development when fully operational. This means development cannot be broken down into stages. On-lot treatments, apart from rainwater tanks, will not be considered except in the R5 Large Lot Residential Zone where MidCoast Council is satisfied there are no other practical alternatives.

Water Sensitive Design does not apply to:

- boundary adjustments
- strata subdivisions, and
- subdivisions resulting in lots greater than 40ha.

Application Requirements

Development applications for Subdivision Major will require:

- a WSD Strategy and MUSIC modelling prepared in accordance with the Guidelines for Water Sensitive Design Strategies (available from MidCoast Council's website)

Additional assistance in the preparation of a WSD Strategy is available from MidCoast Council's website along with examples of how to apply the development requirements from this section to large scale developments.

2.3.2 Minor Subdivision - results in a total of 3 lots

For minor subdivision, the construction of the WSD measures may occur on the individual lots at the time of further development, where required. To ensure that the applicable stormwater quality and/or quantity objectives can be achieved on the proposed lots a Stormwater Drainage Plan will be required at the subdivision stage.

Application Requirements

At a minimum, the Stormwater Drainage Plan is to:

- Demonstrate how stormwater quality treatment and/or quantity management infrastructure on each lot will drain to MidCoast Council's stormwater infrastructure/system. The Stormwater Drainage Plan must be prepared by a certified Engineer.

2.2 INTENSIVE LIVESTOCK AGRICULTURE AND INTENSIVE PLANT AGRICULTURE

A WSD Strategy will be required to provide detailed information on the management of water quality for the proposed development. The requirements for the strategy will depend on the nature and scale of the development and it is recommended that discussions are held with MidCoast Council prior to submitting an application.

Expert agronomic and water quality advice may be required to develop the WSD Strategy.

Application Requirements

Development applications for Intensive Livestock Agriculture or Intensive Plant Agriculture are required to submit:

- a WSD Strategy prepared in accordance with the Guidelines for Water Sensitive Design Strategies (available from MidCoast Council's website)

2.3 ALL OTHER NON-RESIDENTIAL DEVELOPMENT (excluding subdivision & Intensive Livestock Agriculture and Intensive Plant Agriculture)

Where MidCoast Council considers the development density, complexity, site constraints or location to pose an increased risk to the environment, the applicant may be required to submit a Water Sensitive Design Strategy based on MUSIC modelling regardless of lot size.

2.3.1 Properties that have a lot size of 2,500m² or less

Small Scale Stormwater Quality Model (S3QM), see **Section 3.0** below, can generally be used for proposed non-residential developments on properties that have a lot size of 2,500m² or less.

Application Requirements

Development applications for non-residential development on properties that have a lot size of 2,500m² or less are required to submit:

- a Small Scale Stormwater Quality Model (S3QM) Certificate
- Completed checklist for small scale developments (available from MidCoast Council's website).
- Site plan showing roofed and other impervious areas, treatment measure locations and drainage layouts including lines and connections.
- Calculation of roof area, driveway and other impervious areas on site plan.
- For commercial and industrial sites, a summary of water conservation measures to be applied on site, including an estimate of total water demands and expected savings associated with water conservation measures, as well as detail on how water demands will be managed and monitored.
- Where more than one catchment has been used in the model include catchments and areas for the catchments on the site plan.
- Plans and cross-sectional drawings of stormwater treatment systems, showing inlets, outlets and overflow points (these may be prepared from standard drawings, with site-specific levels and dimensions included).

2.3.1 Properties that have a lot size greater than 2,500m²

A WSD Strategy based on MUSIC Modelling will be required to provide detailed information on the management of water quality for the proposed non-residential developments on land where the lot size is greater than 2500m². The requirements for the strategy will depend on the nature and scale of the development and it is recommended that discussions are held with MidCoast Council prior to submitting an application.

Application Requirements

Development applications for non-residential development on properties that have a lot size greater than 2500m² are required to submit:

- a WSD Strategy and MUSIC model prepared in accordance with the Guidelines for Water Sensitive Design Strategies.

3.0 THE SMALL SCALE STORMWATER QUALITY MODEL (S3QM)

The S3QM is an online tool that uses the characteristics of the site and proposed development to calculate the required water quality treatments to meet the Stormwater Quality Targets. A link to the tool and user guide is available at www.s3qm.com.au

MidCoast Council's preferred options for water quality treatments within the S3QM are:

- Biofiltration (raingarden for clay soils or infiltrating raingarden for sandy soils);
- Swales; and
- Buffers.

(Fact sheets are available on MidCoast Council's website for the construction design of these water quality treatments).

Other water quality treatment options within the S3QM are not generally supported by MidCoast Council, however if MidCoast Council concedes that the preferred options above cannot be effectively achieved, other treatments may be considered on a case-by-case basis.

The S3QM Tool will indicate whether the selected measures comply with applicable stormwater targets. The proposed measures may be adjusted to ensure compliance with the targets.

Once a solution is identified that meets the appropriate water quality targets, the S3QM allows the user to print a Water Sensitive Design Certificate, which should be attached to the Development Application for submission to MidCoast Council. The commitments made using the S3QM, if approved, then form part of the conditions of any Development Approval issued.

Further information on the S3QM including an example of how to apply the tool and guidance on how to assess the soil type on your property is available from MidCoast Council.

4.0 CONTROLS FOR WATER SENSITIVE DESIGN

Additional stormwater drainage measures may be required by MidCoast Council to address potential flood issues related to the development. Instances where additional requirements apply may include development in areas where there is insufficient capacity in existing stormwater infrastructure to absorb the increased stormwater runoff.

Water Quality Treatments:

- a. are to be designed and constructed in accordance with Council's WSD Standard Plans.
- b. are to be designed, wherever practical, as part of any additional stormwater flow modification measures such as detention and infiltration in such a way as to retain, treat and infiltrate runoff events.
- c. should be integrated into landscaped areas to fit within the built environment of the development and associated stormwater infrastructure which services more than one dwelling should be constructed on common property.
- d. may be constructed within building setback areas.
- e. can be any shape or size, as long as the area is consistent with that calculated to meet the relevant Water Quality Targets.
- f. cannot be constructed:

- i. within a drainage or sewer easements except for privately owned inter-allotment drainage; or
 - ii. within private open space areas; or
 - iii. above services e.g. electricity
- g. should be designed in response to environmental constraints to ensure they:
 - i. do not contribute to increased flooding risk;
 - ii. comply with flood related development controls;
 - iii. withstand storm surge and inundation;
 - iv. minimise the impact of discharge points on bushland areas; and
 - v. avoid the structural root zone and tree protection zones of trees that will be retained in the development. Details of distances required are outlined in the Australian Standard AS4970-2009, 'Protection of trees on development sites'. As a rule of thumb, the area required to avoid both of these zones is the diameter of the tree at breast height (1.4m) x 12. If there is any excavation within either of these zones further input from an arborist is required.

Note: Where physical site constraints impact on the ability to connect to Council's drainage system or inter-allotment drainage and there are there are potential water quantity impacts on neighbouring properties a variation to the water quality targets in this DCP may be accepted. The applicant should contact Council in these instances.

Review and revision

This procedure is to be reviewed every two years.

Responsible officer/department/section

Director, Liveable Communities

Attachments

Nil.