## **STORM**

## **Stormwater**

# DRAFT WAITAKI DISTRICT PLAN



#### **Stormwater**

#### Introduction

The Stormwater Chapter contains provisions that deal with stormwater management associated with subdivision and development.

Some of the urban areas of Waitaki, and in particular, Ōamaru, experience flooding due to the number of waterbodies within the District, the capacity of existing infrastructure and the climate, which is changing. Hydraulic neutrality measures are an important means of managing peak stormwater runoff from subdivision and development, so it does not increase the risk of downstream flooding. This also assists with prolonging the life of existing stormwater management systems.

While maintaining and enhancing water quality is a responsibility of the Canterbury and Otago Regional Councils, the use of hydraulic neutrality devices and encouraging water sensitive design, including the use of green infrastructure, is an integrated management approach that can assist the Regional Councils in achieving their outcomes for water quality.

Draft Waitaki District Plan STORM – Stormwater

#### **Objectives**

#### STORM-O1 Stormwater quantity neutrality

There is no increased flooding risk or increase in peak demand on stormwater management systems as a result of subdivision and development in urban zones.

#### STORM-O2 Stormwater management

The management of stormwater from subdivision, use and development contributes to maintaining or improving water quality within Waitaki District's waterbodies.

#### **Policies**

#### STORM-P1 Hydraulic neutrality in urban zones

Require all new subdivision and development in urban zones to achieve hydraulic neutrality for the critical duration, as far as reasonably practicable, and, where hydraulic neutrality cannot be achieved, only allow subdivision and development to proceed where it can be demonstrated:

- there are site-specific constraints or opportunities that mean that hydraulic neutrality is not required; and
- 2. there is sufficient capacity within the local reticulated stormwater network to accommodate the additional peak demand; and
- 3. there will be no increase in the risk of downstream flooding.

#### STORM-P2 Stormwater management

Require efficient and sustainable stormwater control and disposal systems to be designed and installed at the time of subdivision or development that:

- minimise the effects of development on-site using stormwater management areas to avoid inundation within the subdivision or development, or on adjoining land, especially if sufficient infrastructure capacity is not available; and
- 2. where feasible, utilise stormwater management areas for multiple uses while ensuring they have a high-quality interface with residential activities or commercial activities.

#### STORM-P3 Water sensitive design

Encourage sustainable stormwater management and water sensitive design principles in subdivision and development, including:

- 1. the use of green infrastructure; and
- 2. the incorporation of indigenous vegetation that is appropriate to the specific site; and
- 3. imitating natural processes; and

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- 4. a multi-disciplinary approach; and
- 5. the provision of on-site rainwater collection for non-potable use.

#### Rules

Note: For certain activities, a resource consent may be required by rules in more than one chapter in the District Plan. Unless expressly stated otherwise by a rule, resource consent is required under each of those rules. The steps to determine the status of an activity are set out in the General Approach Chapter.

#### **PERMITTED ACTIVITIES**

STORM- R1	Subdivision	
All zones	Activity status: Permitted  Where: PER-1 STORM-S1 is complied with; and  PER-2 In urban zones, STORM-S2 is complied with.	Activity status when compliance is not achieved: Restricted Discretionary  Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2  Matters of discretion are restricted to: 1. the matters of discretion of any infringed standard.

STORM- R2	Increase in impervious area	
Urban zones	Where: PER-1 Any additional new impervious surface, where the total area results in non-compliance with the minimum permeable surface area in the zone standards, has a hydraulic neutrality device that is sized for the area of pervious surface that is lost through the development; and  PER-2 STORM-S2 is complied with.	Activity status when compliance is not achieved: Restricted Discretionary  Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2  Matters of discretion are restricted to: 1. the matters in STORM-S2.

#### **STORM STANDARDS**

#### STORM-S1 Stormwater management

#### All zones

- Where a connection to a stormwater management system is available, all new allotments must be provided with a connection at the allotment boundary that provides the level of service in Chapter 4 Stormwater, Table 4.1 of NZS4404:2010.
- 2. where a connection to a stormwater management system is not available and the means of stormwater disposal is to ground, that part of the site must not be identified on the Planning Maps as being subject to instability or inundation, or be used for the disposal of wastewater.

#### Matters of discretion are restricted to:

- whether the design, location, capacity, type and construction of devices or system, achieves hydraulic neutrality, having regard to site and operational constraints; and
- 2. the access and on-going maintenance of the hydraulic neutrality devices; and
- 3. whether the hydraulic neutrality device achieves a secondary function of treating stormwater prior to the water entering the wider stormwater network through the use of roadside swales, filter strips and rain gardens, constructed wetland treatment areas or other in-situ treatment devices.

#### STORM-S2 Hydraulic neutrality

### Urban zones

- All subdivisions must achieve hydraulic neutrality for the critical duration, using an accepted solution. See APP1 – Stormwater tanks on private property accepted solutions.
- Any stormwater treatment device or system must be:
  - a) sized, designed and built so that peak stormwater flow in a 2 year, 10 year and 100 year (Average Recurrence Interval (ARI)) flood event from the site, post development, is no greater than the predevelopment peak stormwater flow.
  - b) fully operational prior to the use of the impervious area.
  - c) located and designed to provide easy access for maintenance, if not, acquire appropriate easements.

#### Matters of discretion are restricted to:

- whether the design, location, capacity, type and construction of devices or system achieves hydraulic neutrality, having regard to site and operational constraints; and
- the access and on-going maintenance of the hydraulic neutrality devices; and
- 3. whether the hydraulic neutrality device achieves a secondary function of treating stormwater prior to the water entering the wider stormwater network through the use of roadside swales, filter strips and rain gardens, constructed wetland treatment areas or other in-situ treatment devices; and
- any potential impacts on any downstream flooding hazard; and
- the size and scale of the development and the additional stormwater that the proposal will

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generate compared to the existing situation; and

6. the preference for one central hydraulic neutrality device over numerous individual hydraulic neutrality devices; and

7. the capacity of the local stormwater network; and

8. whether there are any site-specific constraints or opportunities within the local area that mean that hydraulic neutrality is not required.