

Stormwater Management Plan

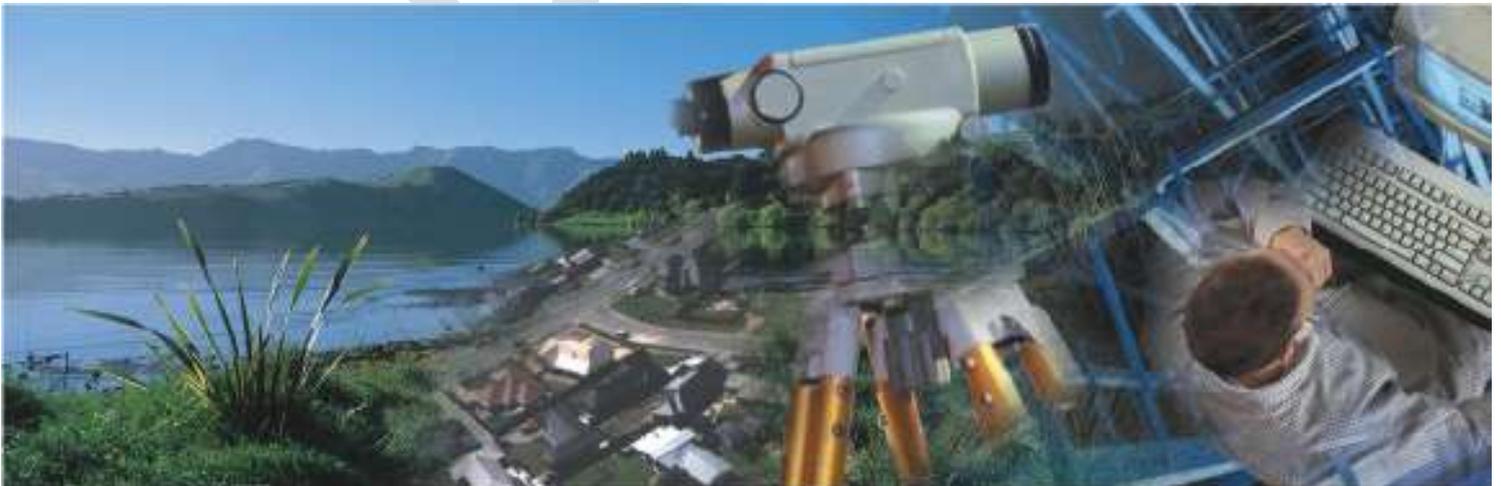
Prepared for Environment Canterbury and Selwyn District Council

Hughes Developments Limited
Faringdon South East, Rolleston
2021



DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING



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Introduction

As part of the subdivision consent granted by Selwyn District Council to Hughes Developments Limited, it states:

“That the consent holder shall prepare and submit a Stormwater Management Plan in accordance with the requirements of the Selwyn District Council and the Canterbury Regional Council. This plan shall be provided for Selwyn District Council’s approval and sign-off at the Consent Holders cost.”

This Stormwater Management Plan has been prepared in anticipation of the above condition, and to support the application to Environment Canterbury for the discharge to stormwater.

Design Criteria

The following design criteria were adopted throughout the design of all stages:

- All lots to contain and dispose of the 10% AEP 1 Hour duration storm event as per the NZ Building Code.
- The site stormwater disposal system is to accommodate of all additional flows from the entire site up to and including the 2% AEP event of any duration. Ground contours are used to direct surface flow to the kerb and channel. From here flow will be collected by channel sumps and conveyed via a reticulated pipe system to rapid soakage trenches located in council reserve areas.

Description of Stormwater System

Soakage trenches have been designed using a specified catchment size, SDC rainfall data and appropriate run-off coefficients to determine peak flows into the system. Pipes have been sized according to these peak flows using the Colebrook white formula.

In addition to this the stormwater system has been designed to comply with Environment Canterbury consents CRC _____

The As-Built Drawings of the stormwater system can be found in **Appendix A**, the ECan Consents can be found in **Appendix B**.

Maintenance Procedures

Maintenance Following Construction

The maintenance requirements for the contractor to meet during the maintenance period of two years include minimum once yearly inspection of all parts of the stormwater system with remediation actions as required. A copy of the minimum inspection requirements and remediation actions are included in **Appendix C**.

The maintenance personnel engaged by the developer _____. He can be contacted on _____.

Maintenance Following Handover to Council

The Selwyn District Council has a standard maintenance programme for its stormwater facilities and it is expected that the stormwater facility will be maintained generally in accordance with that when the facility is handed over to SDC. A copy of the Standard Stormwater Maintenance Schedule is included in **Appendix D**.

Handover Procedure

Two months prior to completion of the maintenance period of each stage, a final inspection of the system will be carried out by a Davie Lovell-Smith Ltd representative and any remedial actions, if required, will be carried out. Once the system is fully complying with the Standard SDC Maintenance Schedule a request for handover will be made.

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Appendix A: Stormwater As-Built Plans

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Appendix B: ECan Consent CRC_____

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Appendix C: Maintenance Period Requirements

Minimum Stormwater System Maintenance Inspections and Remediation During Maintenance Period - To Be Carried Out By The Contractor

Stormwater systems shall be maintained as follows:

- a) All sumps shall be inspected at least once a year and removal of sediment, debris, and litter likely to adversely affect the operation of the system, shall occur within 10 working days of the maintenance visit.
- b) For areas up to and including hard standing areas, site inspection shall occur at least once every six months; and
 - i. Removal of sediment, debris, and litter likely to adversely affect the operation of the system, shall occur within 10 working days of the maintenance visit.
 - ii. Removal of hydrocarbons that are in a layer greater than 5 mm thick in sumps shall occur within 10 working days of the maintenance visit.

Note that these are minimum requirements. Should the Contractor be continuing to carry out further work at the site there is extra risk of problems occurring, and it is the Contractors responsibility to remediate problems that may be noticed at any time during the maintenance period.

The contractor is to keep a record of the inspections and remediation actions carried out and provide a copy of these records at the end of the maintenance period.

Appendix D: SDC Maintenance Schedule

**Table CRC111663B - Selwyn District Council
STANDARD STORMWATER MAINTENANCE SCHEDULE**

	Minimum frequency of maintenance visit						
	Sumps			Swales		Infiltration and dry basins, and attenuation swales	
	Key sumps	Non-key sumps	To soakage chambers	Urban	Rural-residential		
litter likely to adversely affect the system, within 10 working days of maintenance visit	Yearly	Two Yearly	Yearly	6 monthly	Yearly	6 monthly	
debris likely to adversely affect the system, within 10 working days of maintenance visit	Yearly	Two Yearly	Yearly	N/A	N/A	N/A	
erosion or scour that is visible over an area greater than 5 square metres (or a layer greater than 5 mm), within 10 working days of maintenance visit	N/A	N/A	6 monthly	6 monthly	Yearly	6 monthly	
erosion and scour, if the maintenance visit is required	N/A	N/A	N/A	6 monthly	Yearly	6 monthly	
poor or patchy soil cover or erosion greater than 10 square metres							