

Whangamata Stormwater Master Plan Update

TO	All of Council Committee
FROM	Jonathan Smith - Water Services Asset Engineer
DATE	9 April 2019
SUBJECT	Whangamata Stormwater Master Plan Update

1 Purpose of report

To provide an update on the development Whangamata Stormwater Master Plan.

2 Background

Historically, the primary stormwater management approach has been via ground soakage. However, the increase of infill subdivision and construction of larger properties or second dwellings has increased hard stand areas (impermeable surfaces). This reduces the area where stormwater runoff can be used as soakage and increases the likelihood of ponding / flooding on private properties and road reserves.

3 Issue

Recent storm events have caused flooding and have raised concerns about the extent and capacity of the existing stormwater system, and the potential impacts of climate change need to be accounted for in TCDC's future planning.

4 Discussion

To address the above issue TCDC has engaged Hydraulic Analysis Ltd and Morphem Environmental Ltd to undertake a study and provide recommendations.

The objective of this study is to develop a strategic Stormwater Master Plan (SMP). This SMP will enable TCDC to achieve the following key outcomes:

- Develop and implement a prioritised 10 year works programme to improve stormwater management and mitigate flooding in Whangamata.
- Enable urgent projects to get underway in the 2019/2020 and 2020/2021 years.
- Mitigate future adverse effects through recommendations for updated planning rules and specifications.
- To be able to communicate to internal and external stakeholders how the Stormwater Master Plan will address their area(s) of concern.
- Where appropriate, determine cost vs Level of Service (LoS) to enable the community to make informed decisions about cost against acceptable level of service.
- To inform Council asset and financial planning processes (including business cases if required).

Master Plan Programme

The Council has engaged Hydraulic Analysis Ltd and Morphem Environmental Ltd to undertake the development of the SMP. Indicative timeframes are provided below.

Description	Delivery Date
Strategic Context and Data Review <ul style="list-style-type: none">• Identify water quality requirements and risks• Identify asset performance and risks• Identify flooding issues and risks• GAP analysis	June 2019
Risk Workshop	June 2019

Description	Delivery Date
Flood Modelling <ul style="list-style-type: none"> • Model Build • Current and Future System Performance • Flood Plan Mapping 	October 2019
Multi Criteria Options Assessment	November 2019
Risk Workshop	November 2019
Deliver Stormwater Master Plan	December 2019
Draft Capital Works Programme	December 2019
Finalised Capital Works Programme	February 2020

Construction Programmed Works

In addition to the investigation project, several physical works projects have been completed or are proposed to be completed by the end of the financial year. These include the following.

Description	Delivery Date
Williamson Park Drainage Improvements – Works will separate flows from Williamson Road and Ocean Road and increase below ground storage.	June 2019
Esplanade Drive Drainage Improvements – Works included reshaping and catchment improvements – Completed	December 2018
Esplanade Drive / Lowe Street Drainage Improvements – Works include reshaping and catchment improvements	June 2019
Otahu Stormwater Pump Station Overflow Improvements – Works included enlarging overflow pipe.	September 2018
Rangitua Street Pond Improvements – Works included increasing the capacity of the pond - Completed	February 2019

5 Significance and engagement

The significance of the decision is due to the impact this project will have in association with the following:

- Level of financial impact to the Council and the Local Community;
- Stormwater level of service affected significantly; and
- Likely consequences are controversial.

Financial Impact

The financial impact of possible improvement options will be significant.

Level of Service

The Level of Service regarding stormwater stated in the current 2018-2028 Long Term Plan is:

- The Council's stormwater services protect habitable areas from flooding; and
- The Council minimises the environmental impact of protecting habitable areas from flooding.

The improvement options will increase the compliance to the Levels of Service by mitigating the risk of flooding.

Consequences Controversial

The recommended mitigation works, costs and timeframe maybe unacceptable to the community.

6 Suggested resolution(s)

That the All of Council Committee:

1. Receives the Whangamata Stormwater Master Plan Update report, dated 9 April 2019.