

Stormwater Management Plan summary



SMP Title	Fernleigh Business Park, Waiuku
SMP Date	30 September 2019 – Stage 1; 07 August 2020 - Stage 2 & 3
SMP Version	Rev C – Stage 1; Rev A – Stage 2 & 3
SMP prepared by	Maven Ltd
Location	Cornwall and Collingwood Road junction - Waiuku
Consolidated Receiving Environment	Manukau Harbour
Stormwater Catchment	Waiuku Town
Brownfield / Greenfield	Greenfields
SMP Purpose	Subdivision
Unitary Plan Precinct	Waiuku Precinct (Sub-Precincts A, B and D)
Resource Consent reference	BUN60339255; BUN60362227
Date SMP Adopted	26 March 2021
HW Reference	NDC-2020-59

Stormwater management requirements

Stormwater management catchment	Proposed land use	Receiving environment (type & SEA)	Water quality management	Hydrology mitigation (retention)	Hydrology mitigation (detention)	Flood management	Outlet design	Assets to be vested with council	General comments
A, B, C, E, F	<ul style="list-style-type: none"> 75ha Industrial Use (Business Park). Maximum impervious coverage for industrial lots is 90%. 32 Lots in Stage 1, 41 Lots in Stage 2 & 3. 	<ul style="list-style-type: none"> Manukau Harbour via Golf Course Creek and Waiuku Stream. 	<ul style="list-style-type: none"> Treatment of all impervious areas to GD01/TP10 standards. Achieved through the provision of wetlands GPTs required for waste storage areas. Restrictions on the use of building materials to control leach of contaminants is also proposed via consent notices. 	<ul style="list-style-type: none"> Not located within SMAF Overlay. Retention is not provided due to poor infiltration rates of the soil (clay subsoils) and difficulty providing at source retention for light industrial development. 	<ul style="list-style-type: none"> Extended detention of the first 34.5mm of rainfall depth with controlled release over 24hrs via wetlands and sized orifice. Riparian enhancement and buffer of upper Golf Course Creek and Waiuku Stream. These sections of watercourses are not subject to discharge from developed areas. 	<ul style="list-style-type: none"> Sub-catchment wide detention is provided for the 10-year and 100-year ARI events via wetlands for sub catchments A, B, C, E & F. Flood detention is provided through the proposed wetlands to maintain pre-development flow rates downstream up to 100yr ARI(MPD+CC). Downstream throttle of flow due to existing culverts beneath Glenbrook Railway Embankment. 	<ul style="list-style-type: none"> Multiple outfalls discharging into existing gullies within site boundaries. Design in accordance with TR2013/18. 	<ul style="list-style-type: none"> 3 x drainage reserves (wetland) Pipe networks SWMHs Outfalls 	<ul style="list-style-type: none"> Stage 1 covered under DIS60358827 – to be surrendered upon SMP adoption.

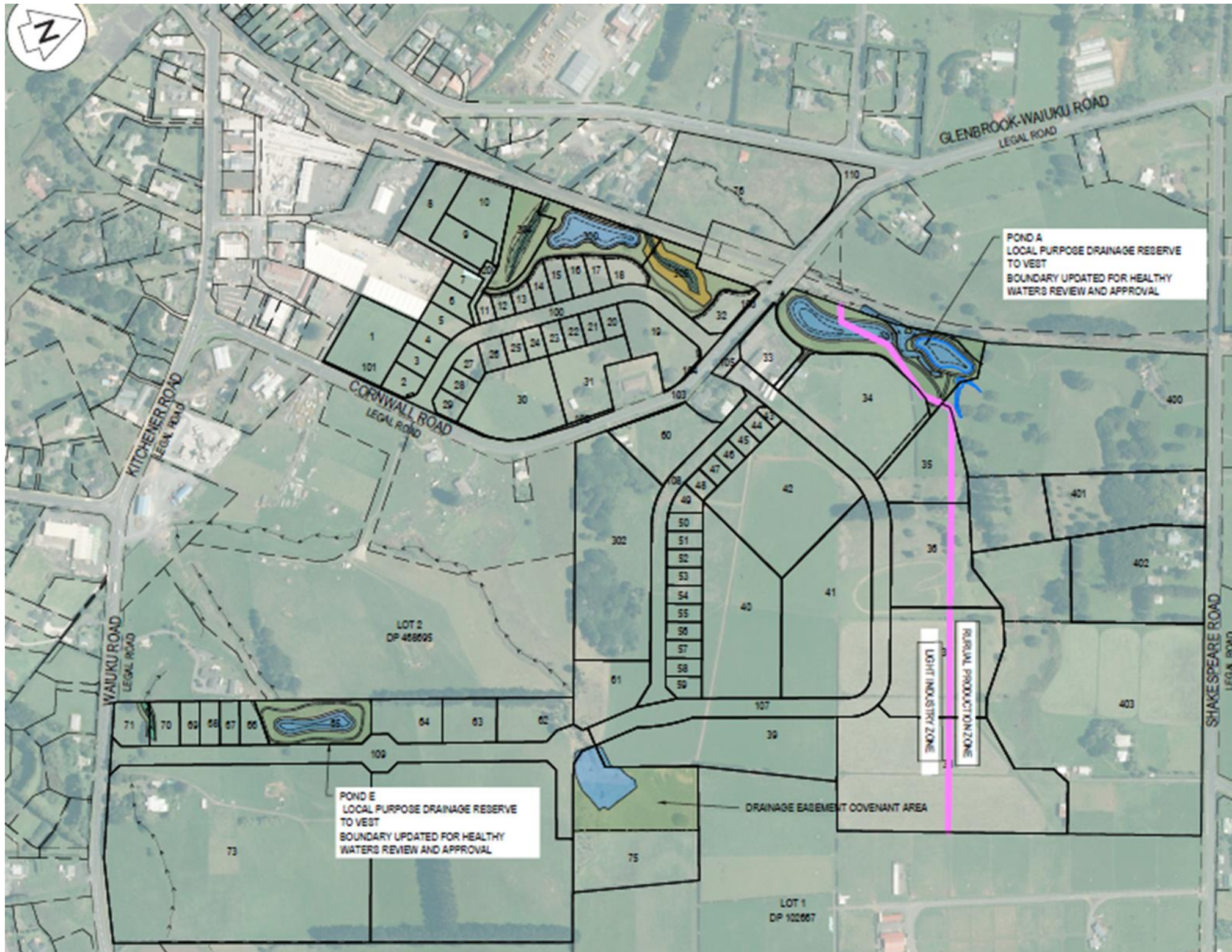
Fernleigh Business Park, Waiuku, Stage 1, 2 & 3 Stormwater Management Plan Summary

Stormwater management catchment	Proposed land use	Receiving environment (type & SEA)	Water quality management	Hydrology mitigation (retention)	Hydrology mitigation (detention)	Flood management	Outlet design	Assets to be vested with council	General comments
D	<ul style="list-style-type: none"> 75ha Industrial Use (Business Park). Maximum impervious coverage for industrial lots is 90%. 32 Lots in Stage 1, 41 Lots in Stage 2 & 3. 	<ul style="list-style-type: none"> Manukau Harbour via Golf Course Creek and Waiuku Stream. 	<ul style="list-style-type: none"> Treatment of all impervious areas to GD01/TP10 standards. Private at-source treatment with stormfilter(s), swales and/or raingardens. GPTs required for waste storage areas. Restrictions on the use of building materials to control leach of contaminants is also proposed via consent notices. 	<ul style="list-style-type: none"> Not located within SMAF Overlay Retention is required at source for the pre/post development runoff difference for the 2-year ARI storm event. Toolbox of at-source retention devices including detention tanks and raingardens. 	<ul style="list-style-type: none"> Extended detention of the first 34.5mm of rainfall depth with controlled release over 24hrs via wetlands and sized orifice. Riparian enhancement and buffer of upper Golf Course Creek and Waiuku Stream. These sections of watercourses are not subject to discharge from developed areas. 	<ul style="list-style-type: none"> Sub-catchment wide detention is provided for the 10-year and 100-year ARI events via a private dry pond (Pond E) for sub catchment D. Flood detention is provided through the proposed dry pond to maintain pre-development flow rates downstream up to 100yr ARI(MPD+CC). Downstream throttle of flow due to existing culverts beneath Glenbrook Railway Embankment. 	<ul style="list-style-type: none"> Multiple outfalls discharging into existing gullies within site boundaries. Design in accordance with TR2013/18. 	<ul style="list-style-type: none"> Pipe networks SWMHs Outfalls 	<ul style="list-style-type: none"> Consent notices outlined for the requirement of private SW treatment/retention devices. Dry pond servicing sub-catchment D will be in private ownership and maintained by future owner of Lot 75.

Notes:

Initially in 2018, the application for Fernleigh Business Park was submitted as a site wide resource consent rather than a staged development. The stormwater management plan was submitted prior to the nationwide NDC coming into effect and was not formally assessed under this framework. Due to servicing issues, the application was divided into three stages, with a discharge consent granted for Stage 1. As the resource consent for Stages 2 & 3 were lodged post adoption of the nationwide NDC, the application was assessed under this framework. For completeness, a formal assessment of Stage 1 is undertaken within this document, with the intent of cancelling the discharge consent for Stage 1 once this SMP is adopted. The BPO for stormwater management for Stage 1 is fundamentally identical to Stages 2 & 3.

Development plan



This document is prepared to provide a summary of the stormwater management requirements within the adopted Stormwater Management Plan. To see the full Stormwater Management Plan please contact HWDevelopment@aucklandcouncil.govt.nz