

Stormwater Management Plan Summary

SMP Title	Stormwater Management Plan
SMP Date	14/02/2022
SMP Version	Revision D (44028-RP-C-EG02-D)
SMP prepared by	Cato Bolam
SMP prepared for	HND RB Limited
Location	1, 3 and 5 Chenery Road
Consolidated Receiving Environment	Hibiscus Coast
Stormwater Catchment	Weiti River North (as shown in AC GeoMaps)
Development type	Greenfield
SMP Purpose	Residential Subdivision
Unitary Plan Precinct	I535 - Rodney Landscape – Sub-Precinct A
Resource consent reference	PRR00034893, BUN60365834, ENG60393433

HW Reference	NDC-2022-036
Date SMP Adopted	11 April 2022

Proposed Stormwater Management

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
Public Roads	Residential	<ul style="list-style-type: none"> Permanent stream immediately downstream of the site Ultimate receiving environment is a tidally influenced section of the Weiti River – SEA Marine Downstream 	<ul style="list-style-type: none"> Treatment of all trafficked impervious surfaces to GD01 (or equivalent) Public Raingardens to treat runoff from public roads 	<ul style="list-style-type: none"> Required SMAF 1 retention volume to be substituted as additional detention 	<ul style="list-style-type: none"> Public Raingardens will achieve SMAF 1 detention volume 	<ul style="list-style-type: none"> 1% AEP – OLFP's will be conveyed and contained within road corridors 	<ul style="list-style-type: none"> New outfall to streams to be green/naturalised outfalls, and to include erosion protection Designed in accordance with GD01 and TR2013/018 	<ul style="list-style-type: none"> Public stormwater network & manholes Public raingardens will be vested to Auckland Transport Stormwater outfalls which services public network Culvert 1 to be vested as a public asset 	<ul style="list-style-type: none"> In-stream erosion protection works are proposed to improve bank stability

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JOALS	Residential	<ul style="list-style-type: none"> Permanent stream immediately downstream of the site Ultimate receiving environment is a tidally influenced section of the Weiti River – SEA Marine Downstream 	<ul style="list-style-type: none"> Treat all trafficked impervious surfaces to GD01 (or equivalent) Private Raingardens to treat runoff from JOALS 	<ul style="list-style-type: none"> Required SMAF 1 retention volume to be substituted as additional detention 	<ul style="list-style-type: none"> Private Raingardens will achieve SMAF 1 detention volume 	<ul style="list-style-type: none"> 1% AEP – OLFP's will be conveyed and contained within the JOALS 	<ul style="list-style-type: none"> New outfall to streams to be green/naturalised outfalls, and to include erosion protection Designed in accordance with GD01 and TR2013/018 	<ul style="list-style-type: none"> Public stormwater network & manholes Networks which collect runoff for the private JOALS and convey it to stormwater management devices and further, to the new proposed public network will remain in private ownership Stormwater outfalls which services public network Culvert 1 to be vested as a public asset 	<ul style="list-style-type: none"> In-stream erosion protection works are proposed to improve bank stability Raingardens within JOALS to remain in private ownership, maintained by a Body Corporate or similar
Individual Lots	Residential	<ul style="list-style-type: none"> Permanent stream immediately downstream of the site Ultimate receiving environment is a tidally influenced section of the Weiti River – SEA Marine Downstream 	<ul style="list-style-type: none"> Inert building materials to be used for all building surfaces. No exposed roofing, guttering, or cladding made of galvanised steel or copper. A nominal amount of water quality treatment will be achieved by reuse tanks 	<ul style="list-style-type: none"> Retention will be achieved for runoff from roof areas via individual lot stormwater tanks. Tanks will provide non-potable supply harvesting for reuse purposes A toolbox of options has been provided to achieve retention from other impervious areas on individual lots 	<ul style="list-style-type: none"> Detention of runoff from the roof area will be achieved by individual lot stormwater tanks A toolbox of options has been provided to achieve detention from other impervious areas on individual lots 	<ul style="list-style-type: none"> Lot 19 – 2.0m wide easement along the northern boundary, specific OLFP design Lot 33 – 3.0m easement along the western boundary, specific OLFP design Lot 25 – A minimum FFL of RL27.05m 	<ul style="list-style-type: none"> New outfall to streams to be green/naturalised outfalls, and to include erosion protection Designed in accordance with GD01 and TR2013/018 	<ul style="list-style-type: none"> Public stormwater network & manholes 	<ul style="list-style-type: none"> In-stream erosion protection works are proposed to improve bank stability Stormwater outfalls within Lot 23, Lot 24, Lot 25 and Lot 32, Lot 33 will remain in private ownership

Notes:

Lot 23, Lot 24, Lot 25 and Lot 32 include private outfalls to the watercourse. As stormwater runoff from these lots is not diverted to the public network, they will therefore not be covered by the Regionwide Network Discharge Consent.

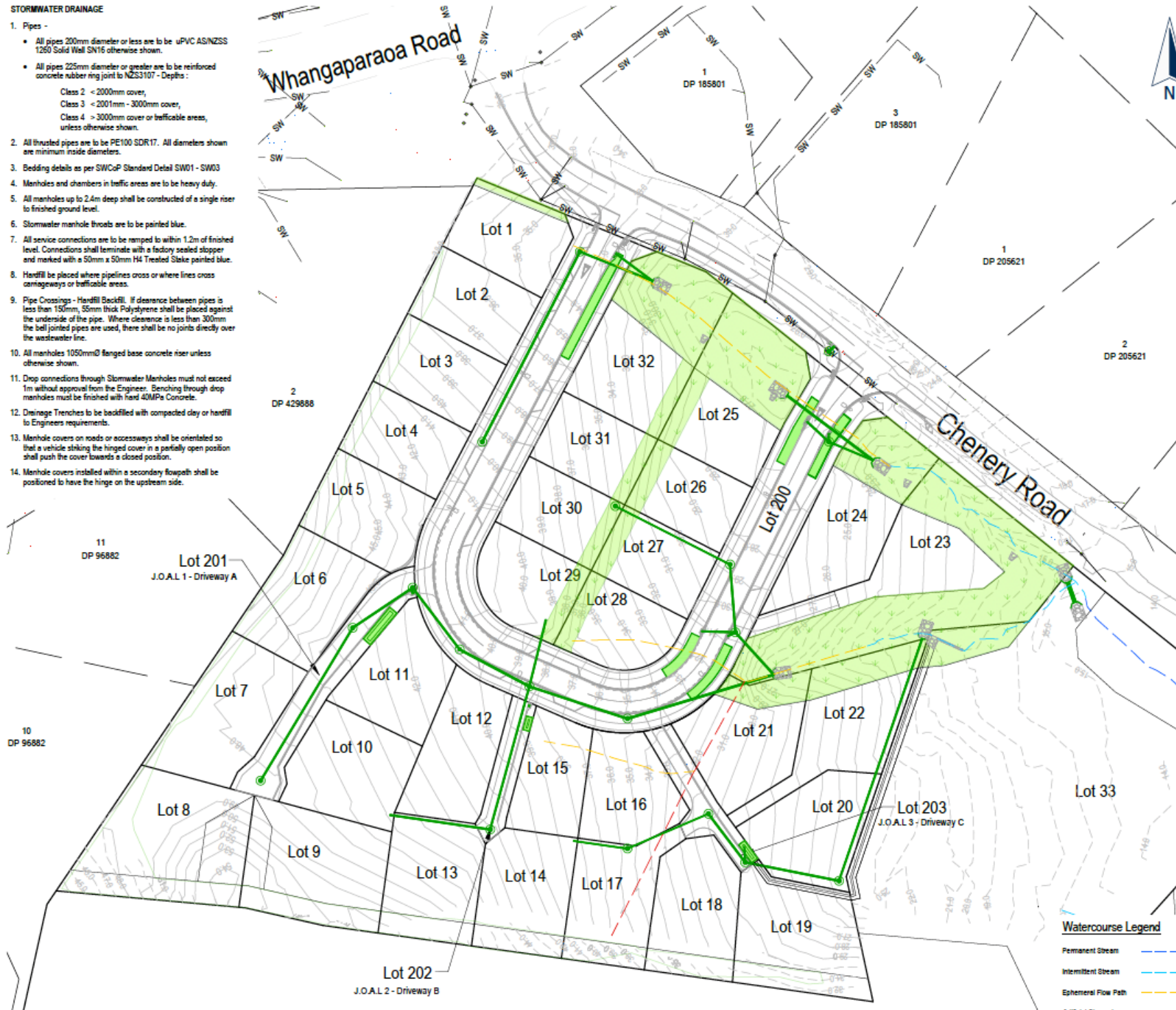
Lot 33 includes an existing dwelling and private stormwater discharge point which will remain. As stormwater runoff from Lot 33 is not diverted to the public network, it will therefore not be covered by the Regionwide Network Discharge Consent.

1, 3 and 5 Chenery Road Stormwater Management Plan Summary

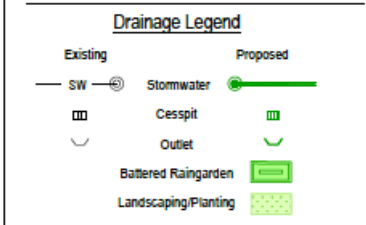
Development Plan

STORMWATER DRAINAGE

- Pipes -**
 - All pipes 200mm diameter or less are to be uPVC AS/NZS 1260 Solid Wall SN16 otherwise shown.
 - All pipes 225mm diameter or greater are to be reinforced concrete rubber ring joint to NZS3107 - Depths:
 - Class 2 < 2000mm cover,
 - Class 3 < 2001mm - 3000mm cover,
 - Class 4 > 3000mm cover or trafficable areas, unless otherwise shown.
- All thrust pipes are to be PE100 SDR17. All diameters shown are minimum inside diameters.
- Bedding details as per SWCoP Standard Detail SW01 - SW03
- Manholes and chambers in traffic areas are to be heavy duty.
- All manholes up to 2.4m deep shall be constructed of a single riser to finished ground level.
- Stormwater manhole throats are to be painted blue.
- All service connections are to be ramped to within 1.2m of finished level. Connections shall terminate with a factory sealed stopper and marked with a 50mm x 50mm H4 Treated Stake painted blue.
- Hardfill be placed where pipelines cross or where lines cross cartageways or trafficable areas.
- Pipe Crossings - Hardfill Backfill. If clearance between pipes is less than 150mm, 50mm thick Polystyrene shall be placed against the underside of the pipe. Where clearance is less than 300mm the bell jointed pipes are used, there shall be no joints directly over the wastewater line.
- All manholes 1050mmØ flanged base concrete riser unless otherwise shown.
- Drop connections through Stormwater Manholes must not exceed 1m without approval from the Engineer. Benching through drop manholes must be finished with hard 40MPa Concrete.
- Drainage Trenches to be backfilled with compacted clay or hardfill to Engineers requirements.
- Manhole covers on roads or accessways shall be orientated so that a vehicle striking the hinged cover in a partially open position shall push the cover towards a closed position.
- Manhole covers installed within a secondary flowpath shall be positioned to have the hinge on the upstream side.



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- ### GENERAL NOTES
- The Contractor shall be responsible for locating all existing services prior to commencement of works. The Contractor shall make good at their own expense any damage to existing services.
 - Levels are in terms of Auckland Vertical Datum 1946.
 - All works are to be installed in accordance with Auckland Council Design Manual - Code of Practice for Land Development and Subdivision: (www.aucklanddesignmanual.co.nz/regulations/codes-of-practice)
 - Chapter 1 - General Requirements
 - Chapter 2 - Earthworks & Geotechnical
 - Chapter 3 - Transport (Auckland Transport)
 - Chapter 4 - Stormwater
 - Chapter 5 - Wastewater (Watercare)
 - Chapter 6 - Water (Watercare)
 Standard Drawings available from their respective websites or the Engineer.
 - If discrepancies are found between the standards, confirmation shall be sought from the Engineer and supervising council field officer.
 - Planting in accordance with "2008/3 Proposed Landscape Master Plan" by Greenwood Associates.



HND RB Limited
Chenery Road
Red Beach

Proposed Stormwater Reticulation Key Plan

FOR RESOURCE CONSENT

No.	REVISION (DESCRIPTIONS)	NAME	DATE
B	Updating Text	SW	25/03/2021
E	Add manhole over existing, adjust cones	AA	07/04/2021
F	Planting extent added	EG	18/04/2021
G	Footpath amended around raingarden	GW	22/07/2021

DATE	ORIGINAL SCALE	ORIGINAL SIZE
25/09/2020	1:1000	A3

DRAWING NO.	REVISION
44028-DR-C-5000	G