Stormwater Activity Management Plan

Westland District Council

2025 - 2034

WESTLAND
District Council | Te Kahui o Poutini

Document Control

The following revisions have been made to this document since its initial publication.

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1.0	19 Mar 2025	Draft for Consultation	WD	AP	AP

Cover photo: Town Belt East Stormwater Outfall.

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Figure: Town Belt East Stormwater Upgrade (February 2023).

1. Hokitika Stormwater Scheme

1.1. Overview and History

Hokitika is the only township in Westland that has a recognised rating area for stormwater. The network includes piped reticulation and pumping stations from a number of catchments and open channels.

The Hokitika Stormwater system is mostly gravity fed with a total of five major pump stations and one minor pump station. Stormwater outfalls discharge to the Hokitika River and Tasman Sea. The general trend is that the Hokitika catchments are governed by stormwater pipelines which typically drain laterally compared to the Hokitika River - from higher ground near the airport to the river's edge.

There are six stormwater pump stations situated in the Hokitika Township.

Figure 1-1: Hokitika Stormwater Scheme Map.

1.2. Scheme Summary

A summary of the Hokitika Stormwater Scheme is provided below in Table 1-1. A map of the catchments is provided below in Figure 1-2.

Table 1-1: Summary of Hokitika Stormwater Scheme.

Description		Quantity
Scheme Area		248.3 ha
System Components	Piped Mains	37.6km
	Sumps/Catchpits	641
	Manholes/Inspection Chambers	295
	Pump Stations	6
	Disposal	River & Sea
History – Original Scheme Install Date		~1970
Value (2024 Valuation)	Optimised Replacement Cost	$39,152,976
	Depreciated Replacement Cost	$17,956,790
Financial	Operator cost	$98,442.16
Demand	Mean Annual Rainfall	2,865 mm/year
	10% AEP (10 year) 1hr rainfall depth	40.0 mm
Sustainability	Discharge Point	Hokitika River

Figure 1-2: Map of stormwater catchment areas - Hokitika.

1.3. Key Issues

The Hokitika Stormwater Scheme key issues have been identified and are detailed below in Table 1-2. A list of the district wide stormwater issues is located in Section 3.3 of the Three Waters AMP 2025.

Table 1-2: Hokitika Scheme Key Issues.

Key Issue	Response
Higher intensity rainfall with shorter duration leading to capacity overload.	Review catchment management plans to better understand flow and capacity restraints and design accordingly where possible.
Limited “real estate” within reticulated areas for upsizing reticulation.	Look at alternative options such as soakage areas, overland flow paths etc. to assist with current reticulation. Replace like for like size if possible.
Implications of regulatory compliance updates.	Future compliance conditions unknown at this stage but more monitoring is likely to be required. Council has budgeted for “smarts” on pump stations when telemetry upgrades are undertaken.
Unidentified infrastructure	Use CCTV to correctly identify infrastructure.
Separation of stormwater assets from 3W	Use a robust process to determine what stormwater assets are identified as 3W or other parties i.e. transportation, Waka Kotahi

1.4. Resource Consents

The resource consents related to this scheme are detailed below in Table 1-3. Annual water sampling is provided to the West Coast Regional Council to ensure compliance with the consent. No infringement or abatement notices, enforcement order or convictions have been received to date.

Table 1-3: Hokitika Stormwater Reticulation Resource Consents.

Consent	Description	Location	Granted Date	Expiry Date	Consented Discharge
RC11027/1	To discharge stormwater from the Hokitika reticulated stormwater system to the Hokitika River upstream of the coastal marine area.	Hokitika	01/06/2011	01/06/2046	-
RC11027/2	To discharge stormwater from the Hokitika reticulated stormwater system to the Hokitika River within the coastal marine area.				-

1.5. Scheme Assets

A summary of the material, diameters and ages of mains pipes within the Hokitika Scheme are shown below in Figure 1-3, Figure 1-4 and Figure 1-5.

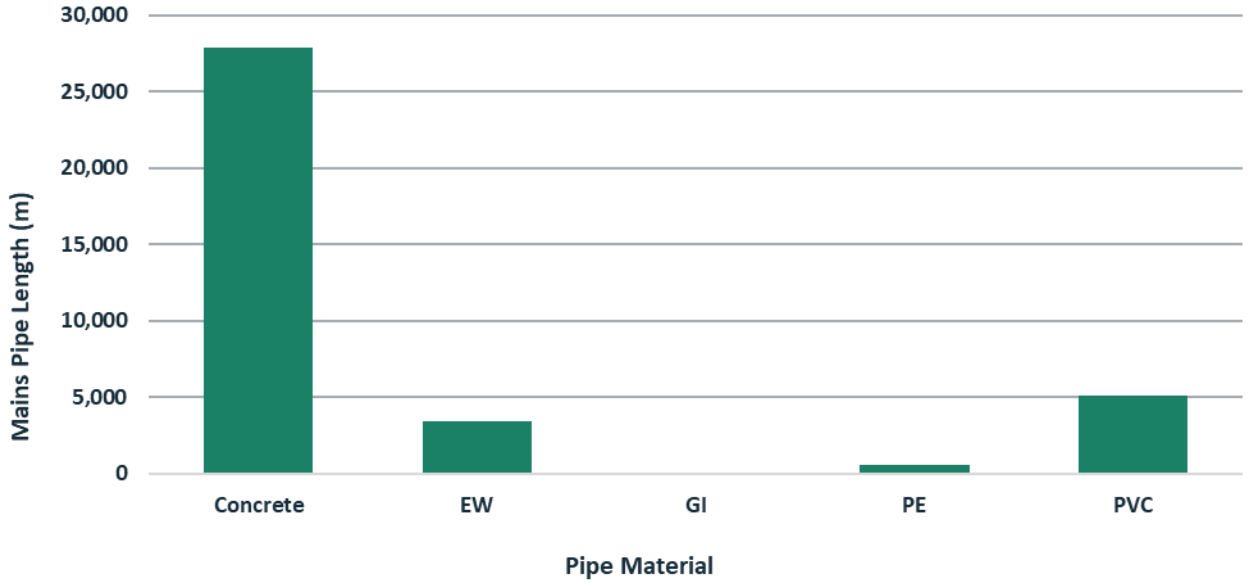

Figure 1-3: Hokitika Scheme Mains Pipe Material.

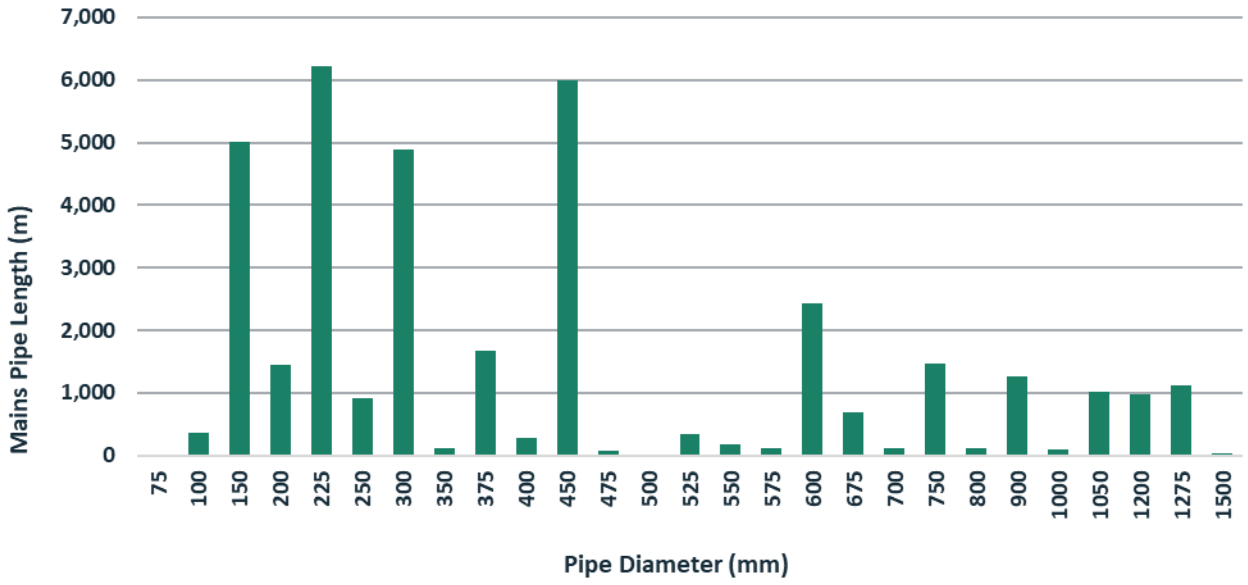

Figure 1-4: Hokitika Scheme Mains Pipe Diameter.

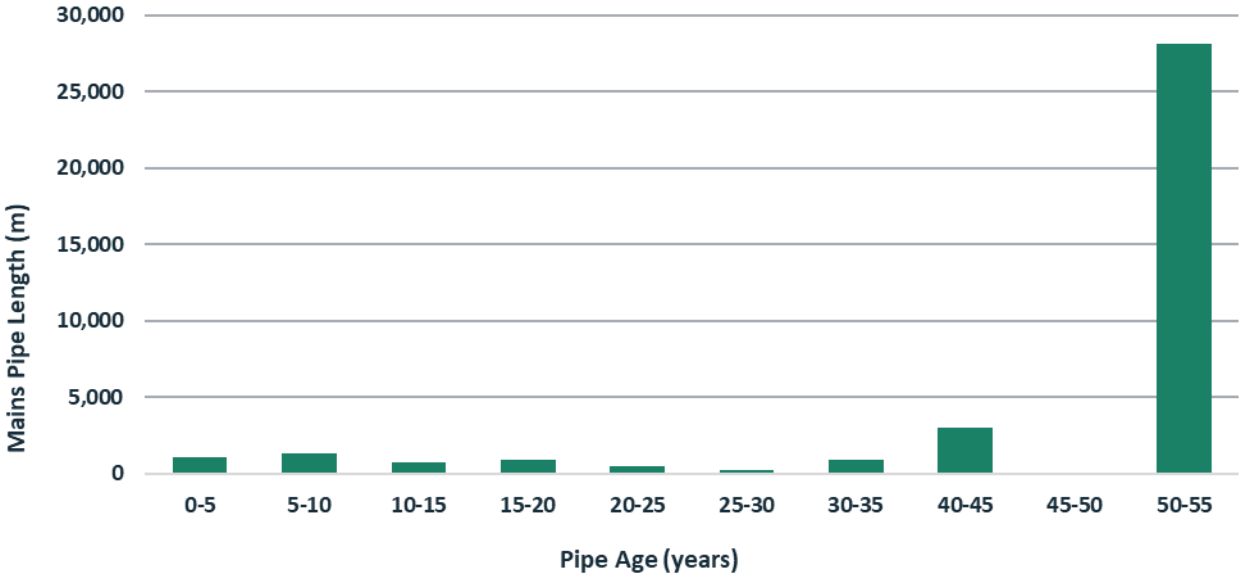

Figure 1-5: Hokitika Scheme Mains Pipe Age.

1.6. Operational Management

The operation and maintenance of the supply is part of the Westland District Utilities Maintenance Contract (22-23-03). The current contract was awarded to Westroads Ltd in August 2022. The term of the contract is 5 years.

1.7. Photos of Main Assets

Figure 1-6: Pump Station.

Figure 1-7: Flap Gate.

1.8. Risk Assessment

A risk assessment has been undertaken for the Hokitika Scheme. No unacceptable risks have been identified.

1.9. Asset Valuation Details

The total replacement value of the assets within the Hokitika stormwater scheme was $39,152,976 as valued at 30 June 2024.

Table 1-4: Hokitika Stormwater Scheme Valuation Breakdown.

Asset Class	Asset sub-class	Optimised Replacement Value	Depreciated Replacement Value
Pump Station		$1,877,290	$846,408
Reticulation	Mains Pipe/Drain	$31,574,074	$13,567,281
	Service Lateral	$1,280,054	$860,528
	Manholes	$2,778,961	$1,741,518
	Sumps/Catchpits	$1,642,597	$941,054
TOTAL		**$39,152,976**	**$17,956,790**

1.10. Critical Assets

The criticality rating of the pipeline assets for the Stormwater Activity is provided below in Table 1-5.

Table 1-5: Criticality of Stormwater Mains Pipelines.

Criticality Level		Length (m)	
1	Very High	4,500	12%
2	High	11,640	31%
3	Medium	21,043	56%
4	Low	80	0.2%
5	Very Low	327	0.9%
	Unknown	12	0%

1.11. Asset Condition

The Three Water Stimulus funding allowed approximately 20% of the Hokitika network to be CCTV surveyed. Although the footage has not been fully processed, it has shown that there is excessive debris build up in the majority of the reticulation (of the area surveyed) which will require additional maintenance.

The condition rating of the assets within the asset database is currently age based and not a physical site assessment. The condition rating of the pipeline assets for the Hokitika Supply is provided below in Table 1-6.

Table 1-6: Condition of Stormwater Mains Pipelines.

Condition Rating		Length (m)	
1	Excellent	1476	3.9%
2	Good	7115	18.9%
3	Average	28,957	77%
4	Poor	54	0%
5	Very Poor	-	-

1.12. Funding Programme

The 9-year financial programme for Hokitika Stormwater is divided into the following categories:

- **Operations** – includes operational and maintenance costs,
- **Renewals** – replacement of assets on a 'like for like' basis,
- **Levels of Service (LOS)** – new assets to increase the level of service,
- **Growth** – new assets to meet additional demand.

The financial programme presented should be viewed noting that:

- **Allowance for CPI** – Consumer price index adjustments 'inflation' has not been included; and
- **All data is held in IBIS** – the database which Council conducts the majority of its financial rates storage and reporting.

The funding programme for Hokitika Stormwater is provided below in Table 1-7.

Table 1-7: Hokitika Stormwater Funding Programme[1].

	Operations	Renewals	LOS	Growth
Year 1	$124,150	$785,000	$57,000	$5,000
Year 2	$125,150	$1,055,000	$76,000	$5,000
Year 3	$130,150	$743,000		$5,000
Year 4	$130,150	$820,000		$5,000
Year 5	$135,650	$490,000		$5,000
Year 6	$135,650	$815,000		$5,000
Year 7	$145,650	$190,000		$5,000
Year 8	$146,150	$555,000		$5,000
Year 9	$146,150	$265,000		$5,000
TOTAL	**$1,218,850**	**$5,718,000**	**$133,000**	**$45,000**

The projects included in the LTP for the Hokitika Stormwater are listed below in Table 1-8.

[1] Throughout the document, the classification of renewals, levels of service and growth may differ from the financial model.

Table 1-8: Hokitika Stormwater Projects.

Project Name	Project Description	Criticality	Funding	Y1	Y2	Y3	Y4-9	Total
Hoffman St Pump Station	Various stormwater components due to replacement.	High	Renewal		$55,000		$190,000	**$245,000**
Stormwater Mains Replacements	Replacement of various stormwater mains.	High	Renewal		$1,000,000	$500,000	$1,900,000	**$3,400,000**
Stormwater Sump Replacements	153 Sumps due for replacement in Hokitika.	Medium	Renewal			$150,000	$275,000	**$425,000**
Jollie St Pump Station	Various stormwater components due to replacement.	High	Renewal	$25,000		$38,000		**$63,000**
Livingstone St Pump Upgrade	Completion of the Livingstone Street Pump Upgrade project.	High	Renewal	$500,000				**$500,000**
New Service connection to boundary ratepayer request	New Service connection to boundary at the ratepayer request.	Low	Growth	$5,000	$5,000	$5,000	$30,000	**$45,000**
River Outfall Flap Gates	Replacement of river outfall flap gates. All are overdue for replacement.	Medium	Renewal				$240,000	**$240,000**
Rolleston St Pump Station	Various stormwater components due to replacement.	High	Renewal			$55,000	$190,000	**$245,000**
Sewell St Pump Station	Various stormwater components due to replacement.	High	Renewal	$260,000			$285,000	**$545,000**
Tancred St Pump Station	Various stormwater components due to replacement.	High	Renewal				$55,000	**$55,000**
Upgrade of Pump Station SCADA / Telemetry	Current units are being phased out and need to be replaced. Year 1 share in one off costs. Year 2 implementation.	High	LOS	$57,000	$76,000			**$133,000**

2. Rural Drainage

2.1. Overview and History

Road drainage from both local roads and State Highways (the latter administered by Waka Kotahi) exist in Kumara, Arahura, Ross, Hari Hari, Whataroa, Franz Josef, Fox Glacier, Haast, Hannahs Clearing, Rimu, Kokatahi, Ōkārito and Neils Beach.

Arahura, Kokatahi, Ōkārito, Hannah's Clearing and Neils Beach have predominantly open roadside street drainage systems. These are captured in the Transportation activity, including culverts.

This activity has a direct correlation in some townships with Waka Kotahi (NZ Transport Agency) roading assets, specifically State Highway 6 pipes, culverts and sumps. Other townships have stormwater assets such as piped reticulation, open channel and flood protection. These are generally funded and managed through either Waka Kotahi or West Coast Regional Council (WCRC) and/or Council general rates.

2.2. Scheme Summary

A summary of the rural drainage is provided below in Table 2-1.

Table 2-1: Summary of Rural Drainage

Description		Quantity
System Components	Piped Mains	9.3km
	Sumps/Catchpits	237
	Manholes/Inspection Chambers	97
	Pump Stations	0
	Disposal	-
History – Original Scheme Install Date		Varies
Value (2024 Valuation)	Optimised Replacement Cost	$8,713,779
	Depreciated Replacement Cost	$4,599,836
Financial	Operator cost	$8,400

2.3. Key Issues

The Rural Drainage key issues have been identified and are detailed below in Table 2-2. A list of the district wide stormwater issues is located in Section 3.3 of the Three Waters AMP 2025.

Table 2-2: Rural Drainage Scheme Key Issues

Key Issue	Response
Determination of which stormwater assets are included in Three Waters or stay/move to Transportation	As Rural Drainage is not a reticulated supply it needs to be determined whether this should be classified as a Stormwater activity or roadside drainage. Local Water Done Well may determine the outcome for Council.

2.4. Scheme Assets

A summary of the material, diameters and ages of pipes within Rural Drainage are shown below in Figure 2-1, Figure 2-2 and Figure 2-3.

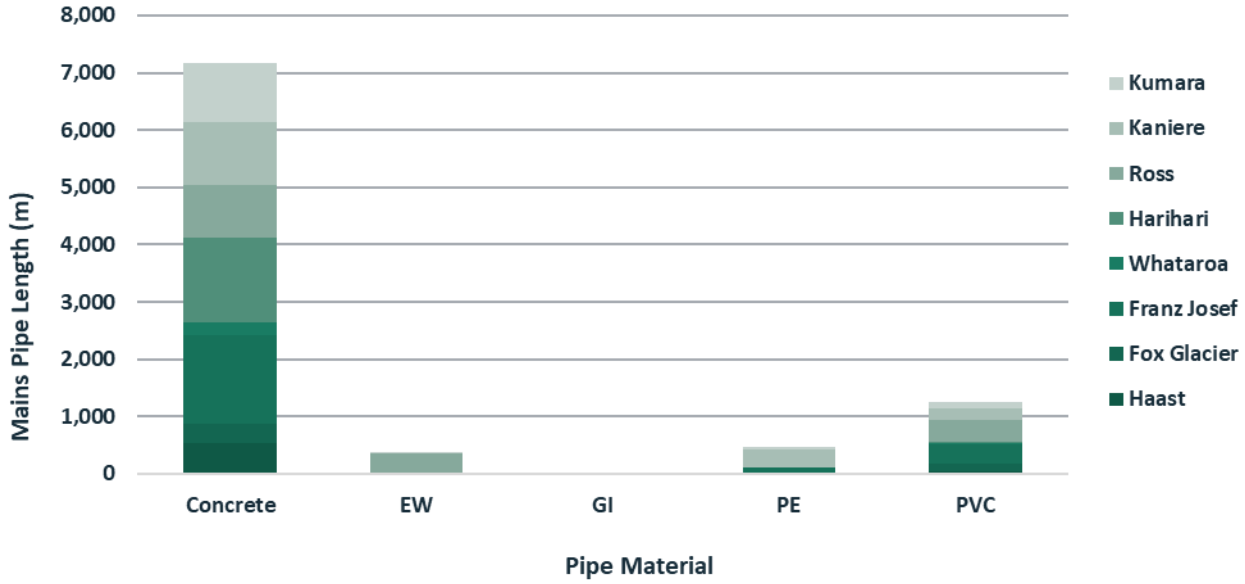

Figure 2-1: Rural Drainage Pipe Material.

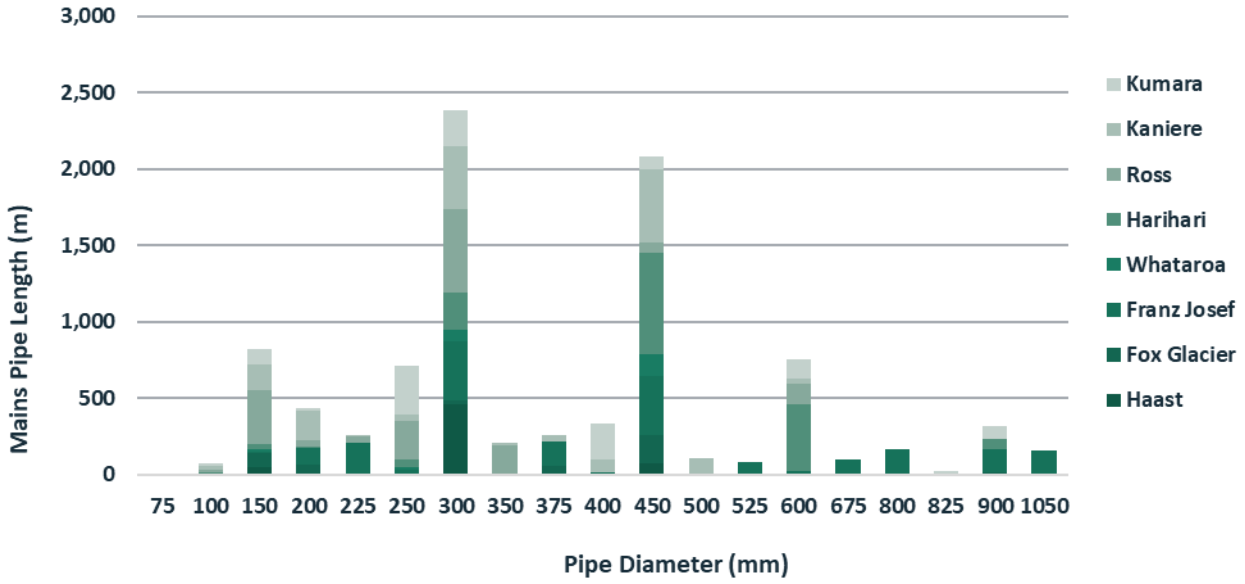

Figure 2-2: Rural Drainage Pipe Diameter.

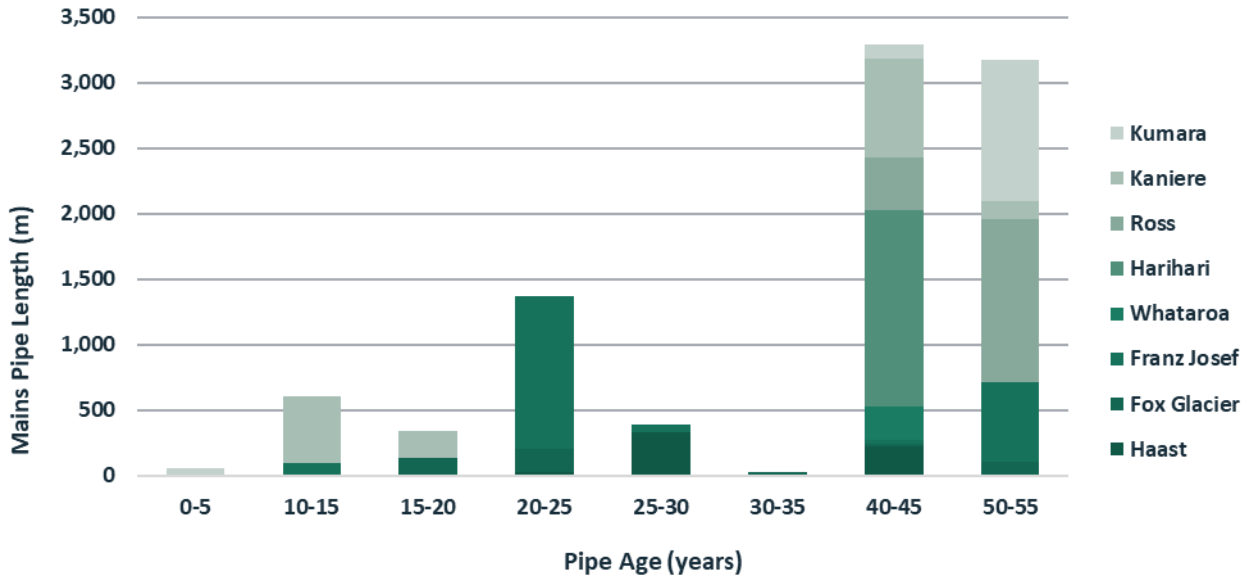

Figure 2-3: Rural Drainage Pipe Age.

2.5. Operational Management

The operation and maintenance of the supply is part of the Westland District Utilities Maintenance Contract (22-23-03). The current contract was awarded to Westroads Ltd in August 2022. The term of the contract is 5 years.

2.6. Asset Valuation Details

The total replacement value of Rural Drainage was $8,713,779 as valued at 30 June 2024 as shown below in Table 2-3.

Table 2-3: Rural Drainage Stormwater Scheme Valuation Breakdown

Asset Class	Asset sub-class	Optimised Replacement Value	Depreciated Replacement Value
Pump Station		-	-
Reticulation	Mains Pipe/Drain	$7,203,836	$3,752,225
	Service Lateral	$286,960	$214,510
	Manholes	$643,936	$351,195
	Sumps/Catchpits	$579,045	$281,903
TOTAL		**$8,713,779**	**$4,599,836**

2.7. Funding Programme

The 9-year financial programme for Rural Drainage is divided into the following categories:

- **Operations** – includes operational and maintenance costs,
- **Renewals** – replacement of assets on a 'like for like' basis,
- **Levels of Service (LOS)** – new assets to increase the level of service,
- **Growth** – new assets to meet additional demand.

The financial programme presented should be viewed noting that:

- **Allowance for CPI** – Consumer price index adjustments 'inflation' has not been included; and
- **All data is held in IBIS** – the database which Council conducts the majority of its financial rates storage and reporting.

The funding programme for Rural Drainage is provided below in Table 2-4.

Table 2-4: Rural Drainage Funding Programme.

	Operations	Renewals	LOS	Growth
Year 1	$8,400			
Year 2	$8,400			
Year 3	$8,400			
Year 4	$8,400			
Year 5	$8,400			
Year 6	$8,400			
Year 7	$8,400			
Year 8	$8,400			
Year 9	$8,400			
TOTAL	**$75,600**			

3. Financial Summary

This section summaries the financial projections and funding requirements for the Stormwater Activity the total expenditure for the Stormwater Activity is shown below in Figure 3-1.

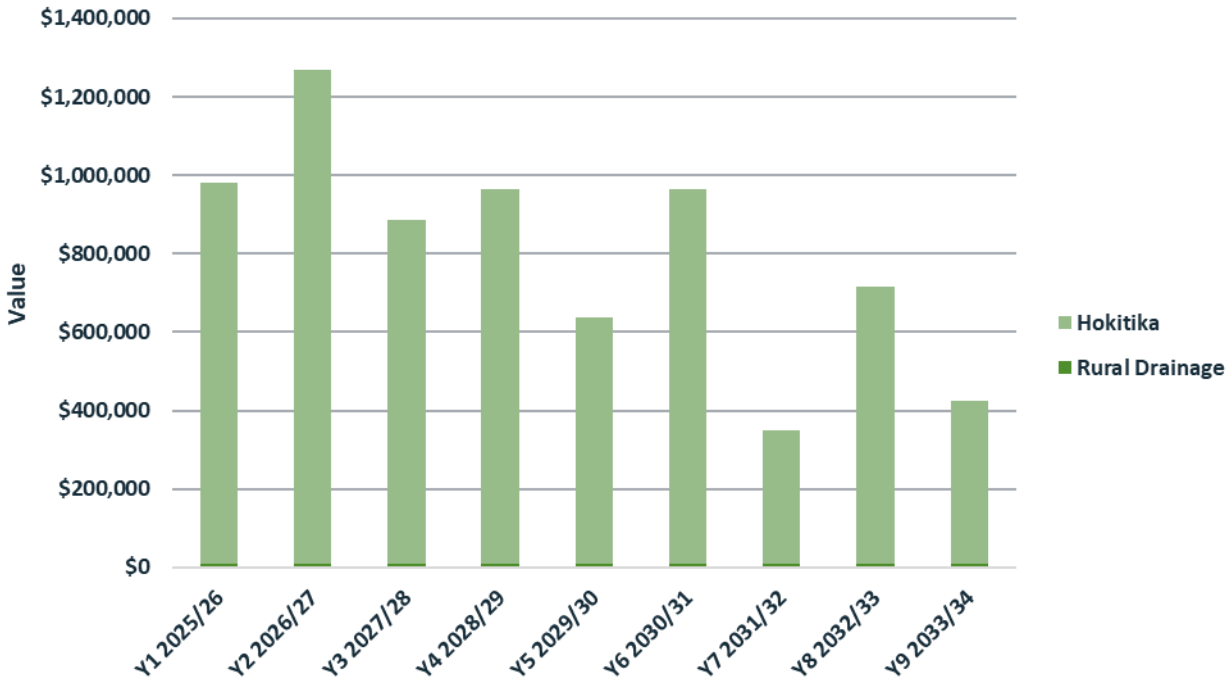

Figure 3-1: Stormwater Activity Expenditure Forecast.

3.1. Summary of Operations and Maintenance

A summary of the forecast Operations and Maintenance expenditure for the Stormwater activity is provided below in Figure 3-2.

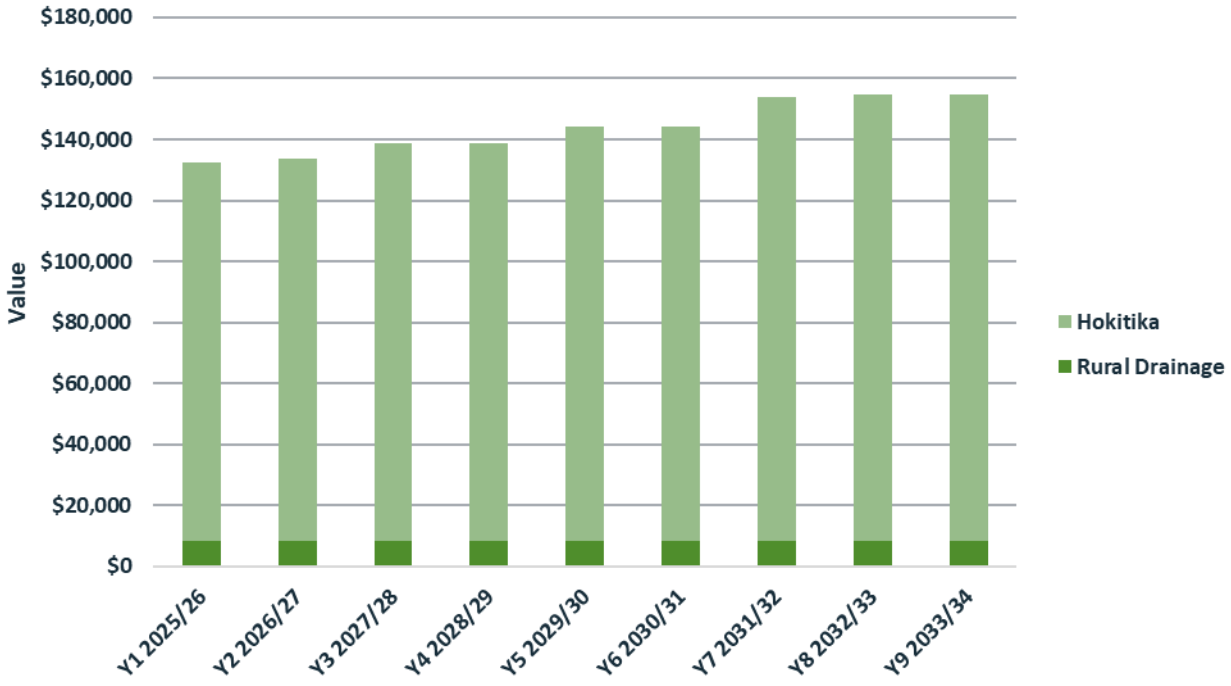

Figure 3-2: Stormwater Activity Operations and Maintenance Forecast.

3.2. Summary of Capital Expenditure

A summary of capital expenditure for the Stormwater Activity is shown below in Figure 3-3. The capital expenditure consists of 97% renewal projects and 2% level of service projects. Growth consists of 0.7% of capital projects and is a general budget for the activity which includes new service connection at request of the ratepayer.

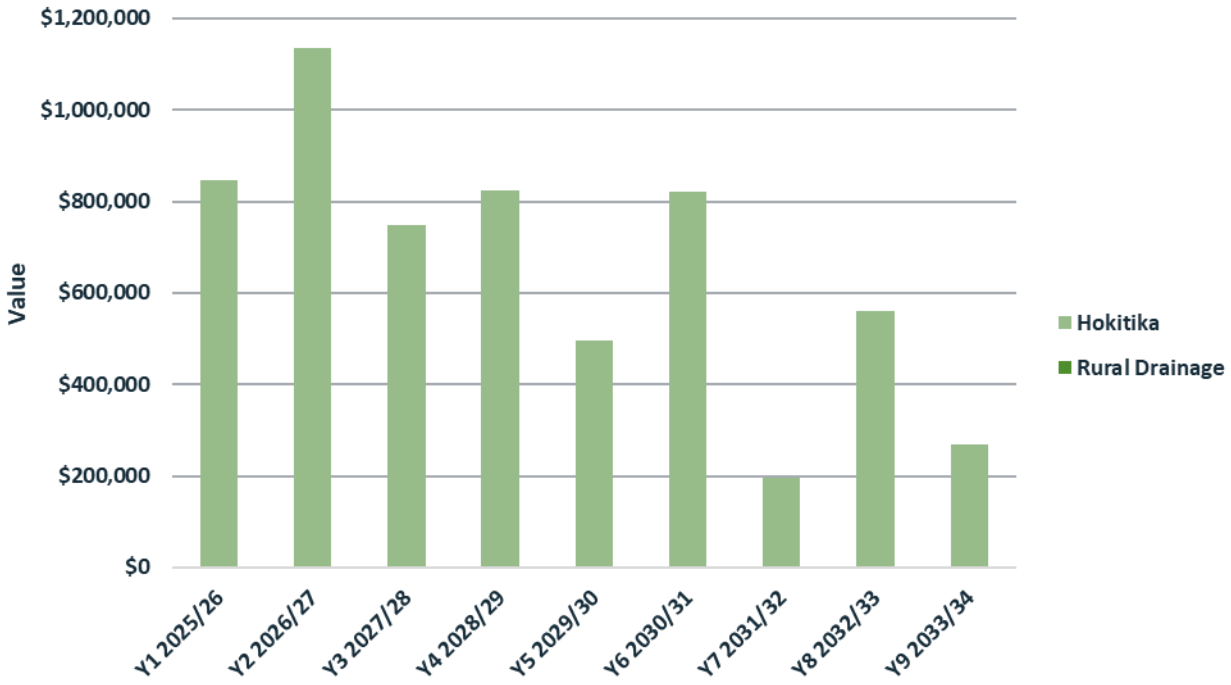

Figure 3-3: Stormwater Activity Capital Expenditure Forecast.