



## HOROWHENUA DISTRICT SCHEMES

9<sup>TH</sup> JULY 2025

VENUE: TE AWAHOU NIEUWE STROOM, FOXTON

#### **HOROWHENUA SCHEMES**

Makerua Moutoa Koputaroa Ōhau/Manakau Foxton East Hōkio Whirokino Himatangi

#### PRESENTATION FORMAT

#### **Regional overview**

- 1. New maintenance programme results
- 2. Works reporting Regional, local combined & individually
- 3. Capital works local examples
- 4. Capital works regional overview
- 5. Asset Management insurance, known asset defects
- 6. Regional flood vulnerability assessment
- 7. Regulatory matters consenting and compliance

#### **Local Schemes – combined summary**

- 8. Local schemes finance summary rates, loans, reserves
- 9. Rates increases
- 10. Local schemes current context and the year ahead
- 11. Case studies
  - Moutoa sluice gates
  - Koputoroa stopbanks
  - Pumps stations alternative power supplies & comms
  - Foxton climate resilience project
- 12. Presentation summary/ individual schemes discussion

#### **REGIONAL MAINTENANCE AND REPAIRS SUMMARY – 34 SCHEMES**

- New maintenance based programme introduced.
- Settled weather has assisted the years activity.
- Some of the repairs budget has been redirected to maintenance.
- Preliminary results show 103% of maintenance budget spent, 52% of repairs budget.

Regional summary	Asset quantity	Works / checks	Percentage	Notes Some areas maintained more than once
Drains (km)	1,149	1,955	170%	Mostly spray, some mechanical
Floodgates (#)	755	1,114	148%	Maintenance and/or checks
Stopbanks (km)	506	982	194%	Mostly mowing
River channel (km)		454		Includes aerial spraying, gravel management
River edge protection (km)	614	118	19%	Willow maintenance
Dams (#)	54	291	539%	Maintenance and/or checks
Pump stations (#)	24	69	288%	Maintenance and/or checks
Weirs (#)	77	5	6%	Maintenance
Amenity (#)	20	2	10%	Maintenance
Flood barrier (#)	10	4	40%	Maintenance and/or checks

#### **HOROWHENUA SCHEMES - MAINTENANCE AND REPAIRS SUMMARY 2024-25**

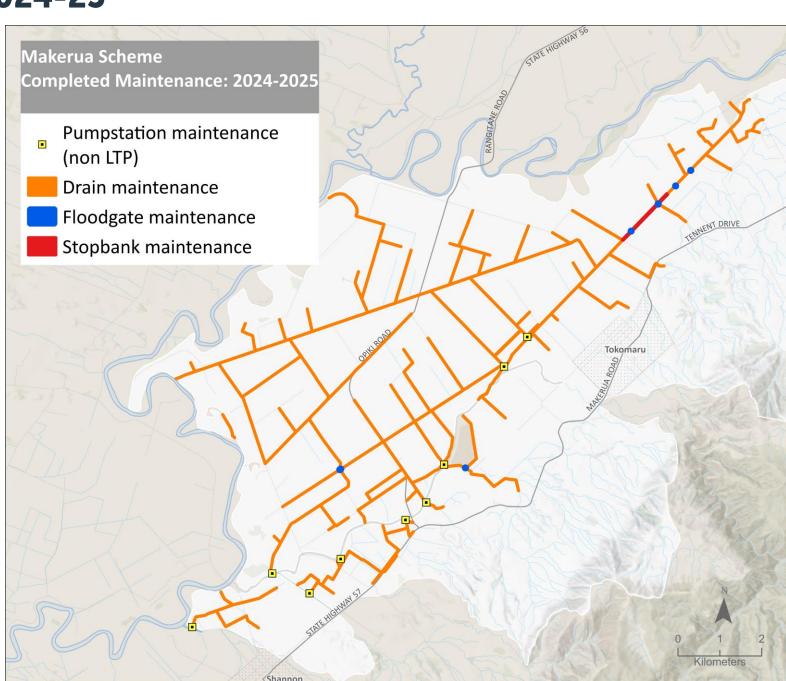
- New maintenance based programme introduced. Settled weather has assisted the years activity.
- Across the 8 schemes:
  - 108% of maintenance budget spent; and
  - 84% of repairs budget (as at early June).

Horowhenua schemes summary	Asset quantity	Works completed	Percentage completed	Notes
Drains (km)	395.1	757	192%	Mostly spray and some mechanical
Floodgates (#)	206	109	53%	Maintenance and/or checks
Stopbanks (km)	52.7	17.1	32%	Mostly mowing
River channel (km)		0.6		
River edge protection (km)	17.2	10.8	63%	Willow Maintenance
Dams (#)				
Pump stations (#)	17	56	329%	Maintenance and/or checks
Weirs (#)	5	0	0%	
Amenity (#)				
Flood barrier (#)				

#### **MAKERUA SCHEME WORKS 2024-25**

- Maintenance approx. 90%;
- Repairs approx. 66%; and
- 2 pumps renewed, 3 generator plugs on pump stations. Linton main drain access for cleaning upgraded (culvert).

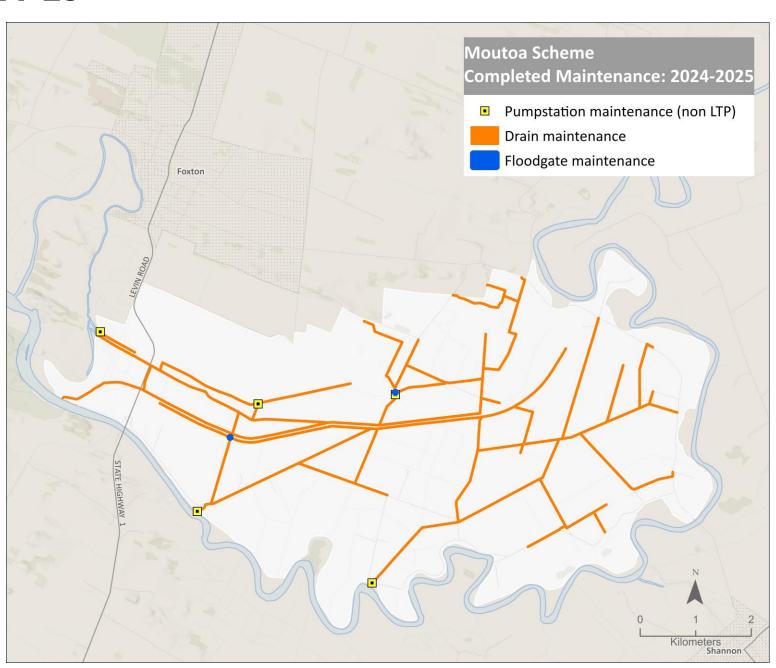
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	108	242	224%
Floodgates (#)	76	8	10%
Stopbanks (km)	19.4	15.9	81%
River channel (km)			
River edge protection (km)	0.1	0	0%
Dams (#)			
Pump stations (#)	7	36	514%
Weirs (#)			
Amenity (#)			
Flood barrier			



#### **MOUTOA SCHEME WORKS 2024-25**

- Maintenance approx. 90%;
- Repairs approx. 93%; and
- 1 pumps renewed, 3 generator plugs on pump stations.

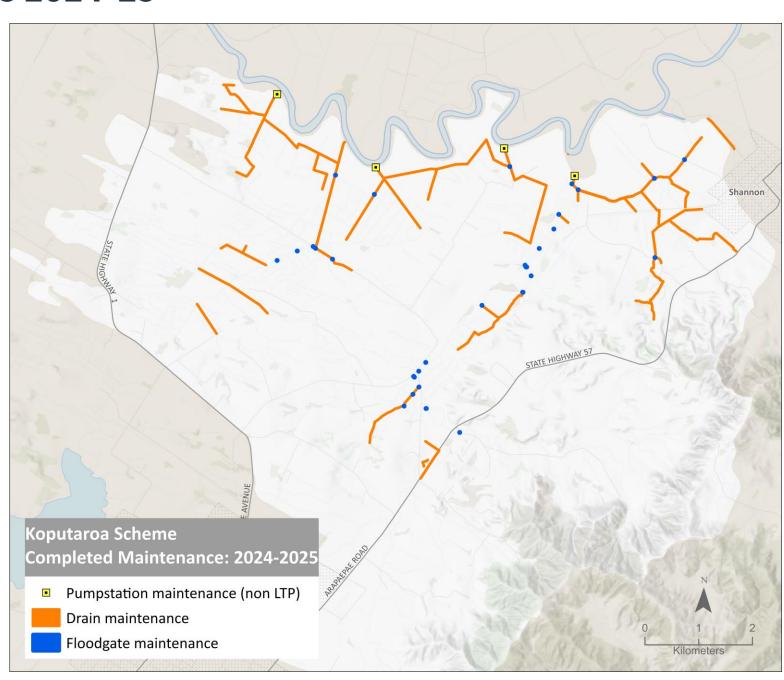
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	66.7	154.1	231%
Floodgates (#)	34	4	12%
Stopbanks (km)			
River channel (km)			
River edge protection (km)			
Dams (#)			
Pump stations (#)	5	10	200%
Weirs (#)			
Amenity (#)			
Flood barrier			



#### **KOPUTOROA SCHEME WORKS 2024-25**

- Maintenance approx. 113%;
- Repairs approx. 83%; and
- 2 pumps renewed, 2 generator plugs on pump stations. Capital projects (stopbanks, pump improvements).

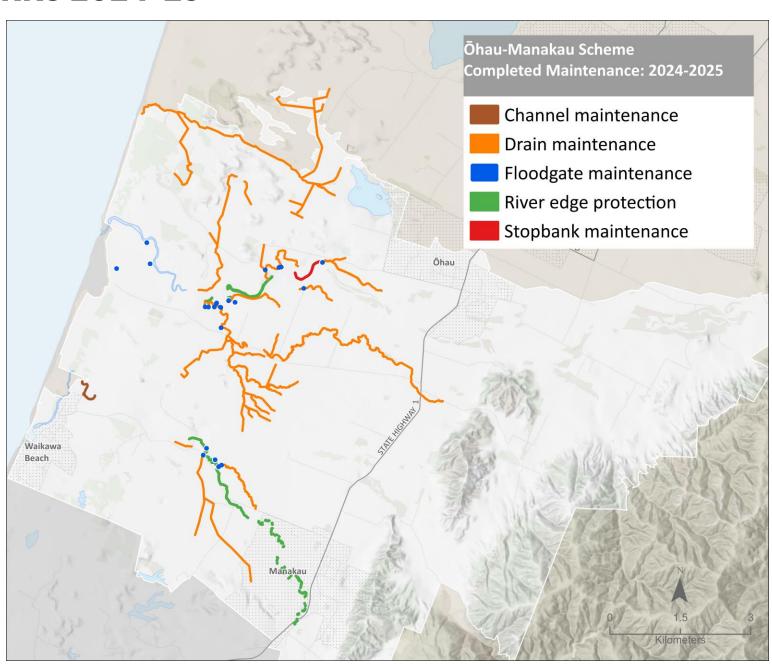
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	55.1	132.2	240%
Floodgates (#)	53	65	122%
Stopbanks (km)	17.7	0	0%
River channel (km)			
River edge protection (km)	0.1	0	0%
Dams (#)			
Pump stations (#)	4	8	200%
Weirs (#)	1	0	0%
Amenity (#)			
Flood barrier			



## **ÖHAU MANAKAU SCHEME WORKS 2024-25**

- Maintenance approx. 119%; and
- Repairs approx. 59%.

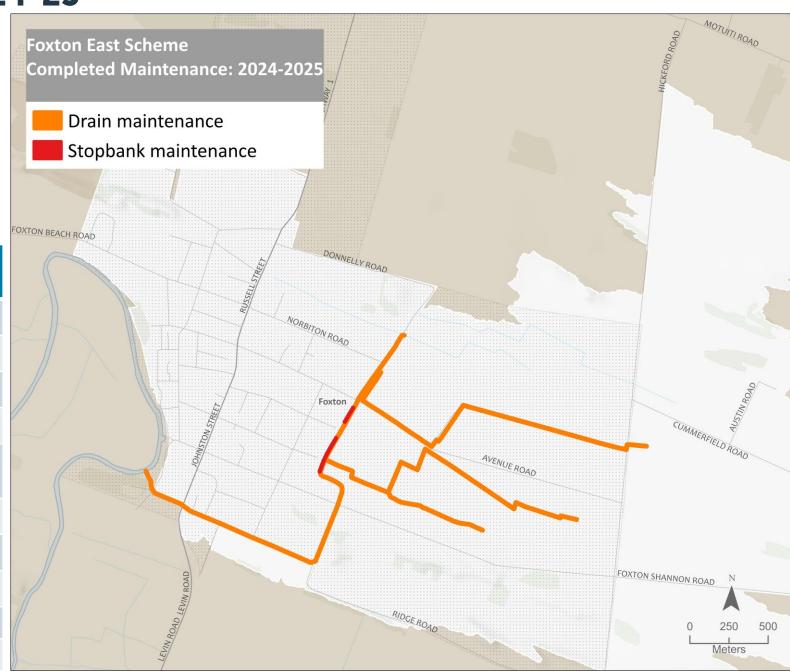
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	47.5	60.4	127%
Floodgates (#)	27	24	89%
Stopbanks (km)	12.7	0.9	7%
River channel (km)		0.6	
River edge protection (km)	16.9	10.8	64%
Dams (#)			
Pump stations (#)			
Weirs (#)			
Amenity (#)			
Flood barrier			



## **FOXTON SCHEME WORKS 2024-25**

- Maintenance approx. 409%;
- Repairs approx. 10%;
- Council approval to use reserves on a additional maintenance (Feb 2025); &
- Capital works separate.

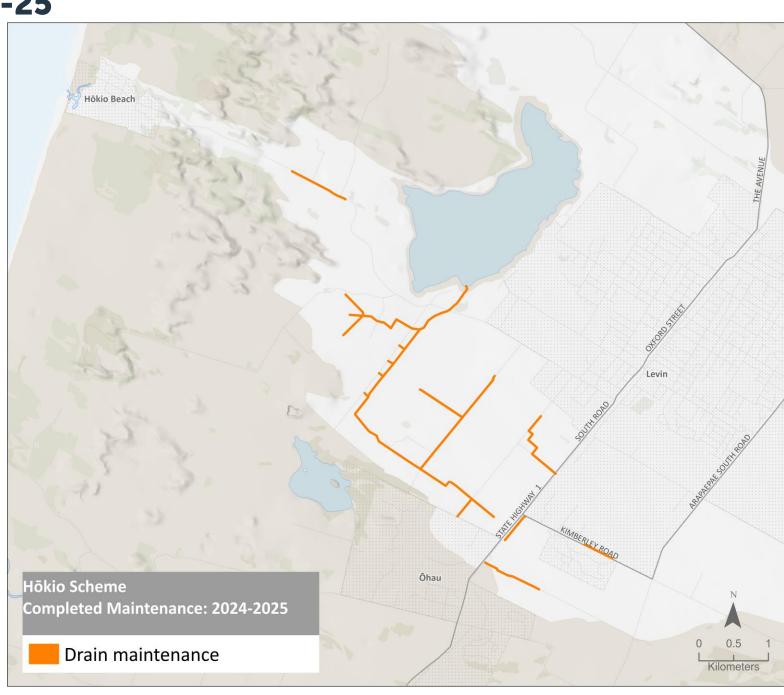
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	8.6	18.8	218%
Floodgates (#)	2	0	0%
Stopbanks (km)	0.3	0.3	100%
River channel (km)			
River edge protection (km)			
Dams (#)			
Pump stations (#)			
Weirs (#)			
Amenity (#)			
Flood barrier			



## **HÖKIO SCHEME WORKS 2024-25**

- Maintenance approx. 51%;
- Repairs approx. 328%;
- Draft maintenance plan for consultation;
- HDC/HRC planning weed removal near the coast (outside of scheme).

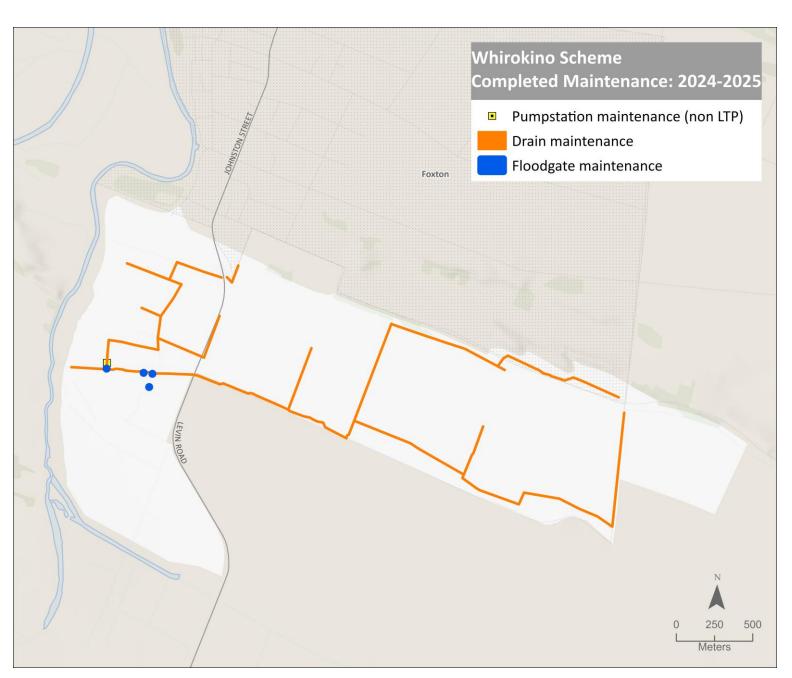
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	46.5	31.0	66%
Floodgates (#)	6	0	0%
Stopbanks (km)			
River channel (km)			
River edge protection (km)			
Dams (#)			
Pump stations (#)			
Weirs (#)	1	0	0%
Amenity (#)			
Flood barrier			



#### **WHIROKINO SCHEME WORKS 2024-25**

- Maintenance approx. 184%;
- Repairs approx. 60%; and
- Some repair budget reallocated to further maintenance.

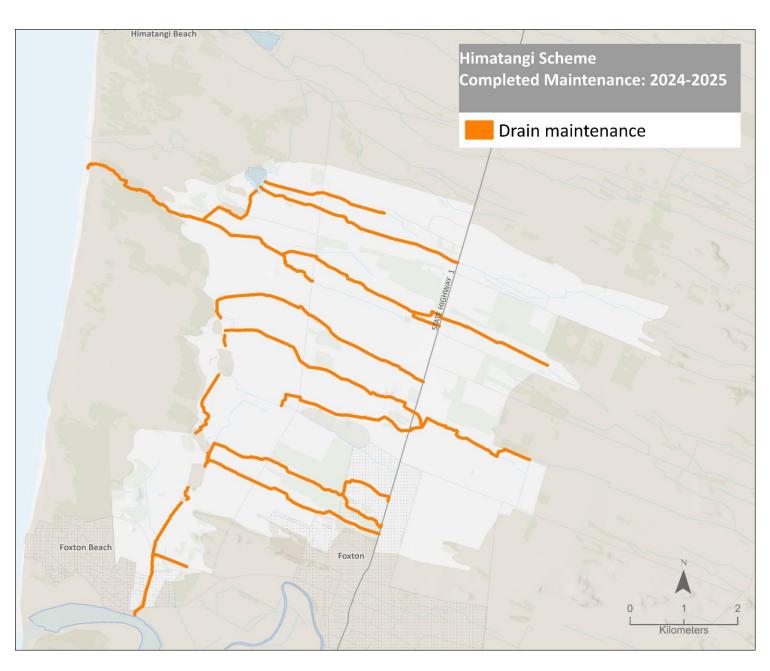
Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	11.0	22.7	206%
Floodgates (#)	8	8	100%
Stopbanks (km)	2.0	0	0%
River channel (km)			
River edge protection (km)			
Dams (#)			
Pump stations (#)	1	2	200%
Weirs (#)			
Amenity (#)			
Flood barrier			



## **HIMATANGI SCHEME WORKS 2024-25**

- Maintenance approx. 234%;
- Repairs approx. 0%; and
- Some repair budget reallocated to further maintenance.

Regional summary	Asset quantity	Works / checks	Percent
Drains (km)	51.8	95.8	184%
Floodgates (#)			
Stopbanks (km)	0.6	0	0%
River channel (km)			
River edge protection (km)			
Dams (#)			
Pump stations (#)			
Weirs (#)	3	0	0%
Amenity (#)			
Flood barrier			



#### CAPITAL PROGRAMME SUMMARY

#### **Regional Overview**

- Delivery tracking to approx. \$19M, nearly double previous year \$10.5M.
- Last year for most government co-funded projects.
- \$11M of government co-funding toward \$29M budget.
- Main underspend was Te Pūwaha (Whanganui) where construction is now underway and the budget carries forward into the new year.
- Next years budget \$7M. Te Pūwaha, Feilding and Palmerston North.
- Flood vulnerability assessment to inform the future work programme.

#### **Local Examples:** Works completed this year included:

- Foxton Climate Resilience project
  - Sheetpiling Kings Canal, pumps purchase, Purcell St. pumping set up.
- Lower Manawatū Climate Resilience
  - Moutoa Sluice gates upgrade, new Moutoa wet gates construction.
  - Tokomaru and Koputoroa stopbank upgrades.
- Local Government Resilience Fund (Cyclone Recovery Unit)
  - Pump station alternative power supply & comms upgrades.





## **REGIONAL CAPITAL PROGRAMME 2024-25**

Area	Whanganui	Rangitīkei	Palmerston North	Horowhenua
Project	Te Pūwaha	Climate resilience	Climate resilience	Climate resilience (lower Manawatū)
Supported by	PGF (Kanoa), WDC, HRC	Kanoa	Kanoa, HRC	Kanoa, HRC
Purpose	River Training	Room for river	Flood protection	Flood protection
Delivery 24-25	Construction started southern side	Vegetation and gravel management, room for river report, planting, track upgrade at Scotts Ferry.	Te Matai Road and Tremaine Avenue works completed. Belvedere Crescent works started, to finish in spring.	Upgrades to Moutoa sluice gates and wet gates, Tokomaru and Koputoroa stopbanks. Rangiotu gates design updated.
Area	Whanganui	Manawatū	Horowhenua	Foxton
Project	Pūtiki resilience	Feilding flood resilience	Pump Station upgrades	Climate Resilience (Foxton)
Supported by	HRC, Pūtiki community, WDC & Waka Kotahi	HRC with governance group, MDC, iwi and landowner rep.	Cyclone recovery unit, HRC.	Kanoa, HDC, HRC, governance group community and hapū reps.
Purpose	Investigations	Flood protection	Alternative power supply and comms.	Flood resilience
Delivery 24-25	Hydrology study and options assessment	Options assessment, further work on Reid Line spillway upgrade. Land Purchase.	Generators purchased, plugs installed.	Sheet piling Kings Canal Pumps purchase and set up for use.

#### **ASSET MANAGEMENT**

#### **Regional Overview**

- Over 3,800 assets valued at over \$1.2 Billion.
- Maximum insurance claim per event is up to \$0.1 Billion.
- Assets insured total \$0.811 Billion.
- Single asset management plan produced to replace 27 plans (more efficient, to be updated annually).

#### **Regional Asset Condition**

- 103 (5%) of assets have major or significant damage.
- A further 347 (9%) have minor damage.



#### **Regional Asset Defects**

- 477 assets at least one of the 1,104 known defects.
- Capacity and information systems are limiting defects management. The Annual Plan has prioritised this.

Defects reporting by area	Number of assets (total)	Number of assets with active defects <sup>1</sup>	Number of active defects
Eastern	812	70	105
Northern	562	42	77
Southern	1,244	92	197
Central	1,210	273	725
Total	3,828	477 <sup>2</sup>	1,104

#### **Horowhenua Schemes Asset Defects**

- These schemes area in the southern area where:
  - There are 1,244 assets;
  - Of which 92 (7%) have at least one known defect; and
  - There are 197 known defects.

<sup>\*</sup> May 2025 reporting. <a href="https://www.horizons.govt.nz/HRC/media/Media/Agenda-Reports/Integrated-Catchment-Committee-Folder/Integrated-Catchment-Committee-2025-14-">https://www.horizons.govt.nz/HRC/media/Media/Agenda-Reports/Integrated-Catchment-Committee-Folder/Integrated-Catchment-Committee-2025-14-</a>

#### FLOOD VULNERABILITY ASSESSMENT (FVA)

#### **Regional Overview**

- Infrastructure strategy recommendation to define a strategic approach to future work programmes.
- Co-funded by Cyclone Recovery Unit funding as part of a larger project.
- The FVA work programme is shown to the right.
- Note work around assets and more detailed flood modelling for the lower Manawatū are also included.

#### What will it mean for the Horowhenua

Project aims to inform/ prioritise work programmes for:

- Future flood modeling (may inform district planning);
- Emergency management planning/response; and
- Future flood protection design and works (e.g. how do Foxton and other towns fit within priorities?).

#### **Work Programme**

- 1. Review existing flood mapping
- Consolidate and review.
- Comment suitability for various purposes.
- 2. Develop a regional flood model
- 3. Produce flood maps for various size events
- With/without climate change & flood defences.
- 4. Produce a flood vulnerability assessment
- Regional level 50 towns & settlements.
- District summary.
- Individual town/settlement summaries.
- **5. Provide a report** including commentary on interpretation and recommendations for future flood modelling work.

#### **REGULATORY MATTERS**

#### **Regional Overview**

- Obtaining and complying with approvals is essential to getting work done.
- Approvals take many forms consents, landowners, treaty legislation, community buy-in, national legislation etc.
- Obtaining approvals and complying is increasingly complex.
- Most of the schemes have not budgeted for this.
- Restructuring has enabled more capacity for this work.
- Systems and processes have been improved.

#### Local regulatory work over the year

- A lot of assessments have been completed prior to undertaking operational works.
- Have been prioritising capital programme consents over operational consents.

#### **Consenting and compliance**

- Schemes have over 200 consents and 4,000 conditions.
- New consents are required when consents expire and when new works are proposed.
- Over 30 consent processes this year. Some ongoing.
- No significant non-compliances in 2024-25. 20+ inspections.
- A region wide abatement notice has been issued.
- One prosecution is being responded to, works in June 2024.
- All significant works are now assessed via a panel.

#### Local consenting work required

- Important that landowners and contractors do not do work that is outside the scope authorized.
- HDC potentially seeking consent for weed removal at the mouth of the Hokio stream.





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#### **HOROWHENUA SCHEMES – FINANCIAL SUMMARY**

- The 8 Horowhenua schemes are a mix of channel maintenance, flood protection and drainage.
- These schemes have approximately \$78M of assets, 6.5% of the regional total.
- Predicted year start for 2025-26 Annual rates budget \$2.4M, \$1.6M loans, \$3.0M reserves.

Scheme	Purpose	Total assets (June 2024, \$)	Budget 2025-26 (\$)			Renewal Reserves* (\$)
Makerua	Land drainage	18,735,810	847,123	101,054	482,552	152,183
Moutoa	Land drainage	9,775,055	505,429	88,736	266,415	-8,466
Koputoroa	Land drainage	19,587,962	362,761	467,570**	194,571	174,667
Ōhau Manakau	Protect rural land from flooding/ erosion	26,353,835	497,457	201,114	762,285	203,818
Foxton East	Land drainage	775,390	47,920	412,081	636,154	5,521
Hōkio	Land drainage	637,482	93,986	278,619	58,890	4,170
Whirokino	Land drainage	1,296,979	56,329	5,581	38,509	10,787
Himatangi	Land drainage	482,904	32,458	-	-4,738	3,768
Horowhenua total		77,645,417	2,443,463	1,554,755	2,434,638	546,488
Regional total		1,197,889,972	17,675,414	50,049,333	14,635,681	1,144,487
% of Regional total		6.5%	13.8%	3.1%	16.6%	47.7%

<sup>\*</sup> Forecast value at 1 July 2025

<sup>\*\*</sup> Note \$300k payment to be paid off loan once HDC payment received later in 2025

#### HOROWHENUA SCHEMES – CURRENT CONTEXT AND YEAR AHEAD

#### **Current context**

- Settled weather has assisted delivery this year.
- Government co-funded projects have enabled a lot of work to be completed and are now finished.
- These projects stretched staff resources, while there was a lot of change in the programme.
- Some follow ups are required Rangiotu gates, Moutoa wet gates, siltation at Moutoa Gates, pump stations upgrades, pumping at Purcell Street.
- Asset management information is improving, still a lot to do to understand and resolve defects.
- Asset renewal programmes require updating.
- Longer term plan for Foxton to be developed Governance group to transition to scheme committee.
- Lease review underway.
- Staffing has been relatively stable within the central and southern teams.

#### The year ahead

Priorities for the year will include:

- Implementing a further year of the maintenance based programme.
- Operating within regulatory frameworks.
- Progressing consenting requirements.
- Using asset information to prioritise repairs, upgrading tracking of defects.
- Reviewing the findings of the flood vulnerability assessment and assessing next steps.
- Responding to any high flow events as they occur.
- Emergency management/ response training.
- Implementing smaller capital programme investigations focused Te Arakura, Reid Line, Feilding and Mangaone stream (Palmerston North).
- Progress Arawhata wetland project in the Hōkio.
- Hōkio maintenance plan to be finalised.
- HDC/HRC Hōkio weed removal (outside scheme).

#### **HOROWHENUA SCHEMES – RATE INCREASES**

- Horowhenua rate increases range from -5.7% to 12.2%
- Key drivers are inflation, additional funding for maintenance and repairs, loan impacts from additional capital work.

Scheme	Rates (\$) 2024-25	Rates (\$) 2025-26	Rates (\$) change	Rates % change	Notes
Makerua	780,793	847,123	66,330	8.5%	Increase maintenance and repair funding plus insurance.
Moutoa	469,555	505,429	35,874	7.6%	Increase maintenance and repair funding plus insurance.
Koputaroa	323,459	362,761	39,302	12.2%	Error in rate calculation (24/25) due to incorrect income.
Ōhau Manakau	492,150	497,457	5,307	1.1%	Inflation.
Foxton East	50,839	47,920	-2,919	-5.7%	Use of reserves to reduce rates.
Hōkio	99,706	93,986	-5,720	-5.7%	Use of reserves to reduce rates.
Whirokino	54,458	56,329	1,871	3.4%	Increase maintenance and repair funding.
Himatangi	30,816	32,458	1,642	5.3%	Increase maintenance and repair funding.
Horowhenua all	2,301,776	2,443,463	141,687	6.2%	
Regional Total	16,574,577	17,675,414	1,100,837		
% of Regional total	13.9%	13.8%	12.8%		

## **CASE STUDIES**



#### **CASE STUDY: MOUTOA SLUICE GATES UPGRADE**

#### **Overview**

- Project was in response to asset inspection information.
- Established in 1962, some components required renewal as there was risk of the gates failing to operate.
- Government co-funding was redirected to this work post Cyclone Gabrielle. Project budget approx. \$3.5M.
- The work is part of the Lower Manawatū Climate resilience project with co-funding via Kanoa.

#### Electrical and mechanical upgrades included

- Electrical cable rewiring. New gate control drives.
- Relocating power lines.
- New mechanical hoist systems.

#### **Project completion and next steps**

- Electrical upgrades are complete.
- New hoist systems have been installed & commissioned.
- Siltation at the gates will be measured and some removal may be undertaken this year.





One of the 9 old hoist systems, and 1 of the 9 new hoist systems



One of two new H-Structure poles for Overhead Lines



Newly installed variable speed drives for gate motor control

#### **CASE STUDY: KOPUTOROA STOPBANK**

#### Koputoroa stopbank upgrade

- The Koputoroa stop bank upgrade project has been underway over three years.
- The project is co-funded by Horowhenua District Council (via consent condition), Kanoa and Horizons.
- The Kanoa contribution is via the Lower Manawatū Climate Resilience Fund project.
- Total costs are estimate to be in the order of \$1.25M.
- Approximately 2km of upgrade.
- Project completed in June 2025, noting some fencing still to be completed.





Photos: Upgraded stopbank in the Koputoroa

#### CASE STUDY: PUMP STATIONS ALTERNATIVE POWER & COMMUNICATIONS

#### Overview

• Following Cyclone Gabrielle Horizons secured \$1.1M (97%) from the Local Government Flood Resilience Co-investment Fund toward pump stations back up power & comms.

#### Four generators were purchased

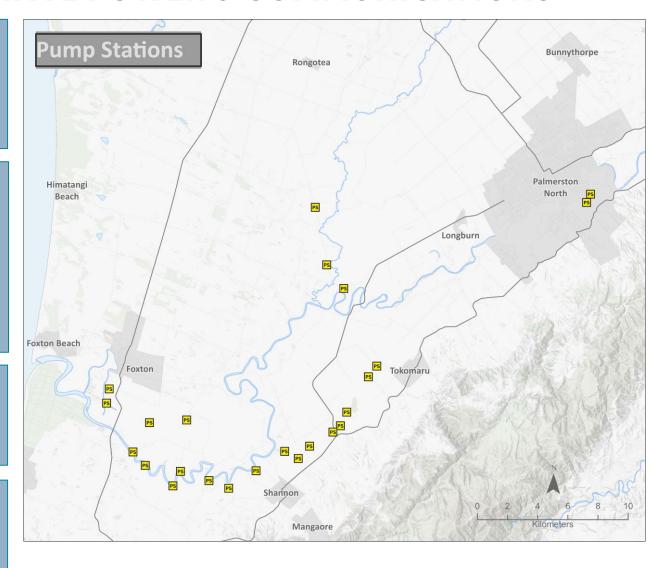
- Three sizes were purchased to cover varying pump sizes.
- One 250 KVA, one 500KVA and two 300KVA.
- The 250 KVA has arrived, 3 others are due into NZ in July.
- Operating protocols will be developed over 2025-26.

#### Generator connections fitted to 10 of the 23 stations

Diagonal, Okuku, Cooks, Boundary, Kop 1, Kop 2, Bernie Coombs, Dixons, Kerekere Road & Raupo Road.

#### Communications upgrades to 21 of the 23

- Equipment is fitted and will be commissioned later in 2025.
- Reporting dashboards e.g. operational status, webcam views and alerting are also being developed/upgraded.













#### **PUMP STATION RESILIENCE – ALTERNATIVE POWER SUPPLY**



New 250KVA Generator



New fuel bowser



Generator connector plugs







#### **CASE STUDY: FOXTON CLIMATE RESILIENCE**

#### **Overview**

- The Foxton Climate Resilience Project started in 2020 co-funded by HDC (15%), Horizons 10% and Kanoa (75%).
- Originally the project set out to redirect water south of town via farmland, to new storage areas, a pump station & discharge points.
- This option was halted in March 2022 due to land access issues, community opposition and increased cost estimates.
- Subsequent plans to redirect water through town and establish a pump station were also ceased due to increased cost estimates and time constraints.

#### **2024-25 activity**

- The project completed a reset in 2024, establishing a Governance Group and revised project plan for the final year of the project.
- Activities included: Sheetpiling Kings Canal; pumps of pumps and set up of Purcell Street for pumping, Cook Street site clean up & stormwater work.
- Additional maintenance was completed (separate budget).
- The Governance Group (GG) involved Councillors (HDC, HRC), iwi/hapū, the Community Board, Save our River Trust.
- The Governance Group will continue in the form of a scheme committee with a focus on developing further long-term upgrade options for Foxton.





Design of concrete structure at end of Purcell Street to enable pumping

## INDIVIDUAL SCHEME SUMMARIES









# Makerua Scheme Assets - June 2025 **Asset Class** Bank Protection Flood Protection Vegetation Management

#### **MAKERUA SCHEME**

#### **ASSETS**

- 108 km of drains
- 76 floodgates
- 19.4 km of stopbanks
- 0.1 km of river edge protection
- 7 pump stations











# Moutoa Scheme Assets - June 2025 **Asset Class** Flood Protection Vegetation Management Foxton Kilometers Shannon

## **MOUTOA SCHEME**

#### **ASSETS**

- 66.7 km of drains
- 34 floodgates
- 5 pump stations











# Shannon Koputaroa Scheme Assets - June 2025 **Asset Class** Bank Protection Flood Protection Vegetation Management

## **KOPUTOROA SCHEME**

#### **ASSETS**

- 55.1 km of drains
- 53 floodgates
- 17.7 km of stopbanks
- 0.1 km river edge protection
- 4 pump stations









## Ōhau-Manakau Scheme Assets - June 2025 **Asset Class** Bank Protection Flood Protection Vegetation Management Control Structure Ōhau Waikawa Manakau

## **ÖHAU - MANAKAU**

#### **SCHEME - ASSETS**

Scheme assets include:

- 47.5 km of drains
- 27 floodgates
- 12.7 km of stopbanks
- 16.9 km of river edge protection
- 1 weir

This scheme also completes channel maintenance and some areas where this occurs may not be shown on the map.





## Foxton East Scheme Assets - June 2025 **Asset Class** Flood Protection Vegetation Management FOXTON BEACH ROAD DONNELLY ROAD Foxton AVENUE ROAD FOXTON SHANNON ROAD Meters

#### **FOXTON EAST**

#### **SCHEME ASSETS**

- 8.6 km of drains
- 2 floodgates
- 0.3 km of stopbanks









## Hōkio Beach Hōkio Scheme Assets - June 2025 **Asset Class** Ōhau Flood Protection Vegetation Management Control Structure

## **HŌKIO SCHEME**

## **ASSETS**

- 46.5 km of drains
- 6 floodgates
- 1 weir











# Whirokino Scheme Assets - June 2025 **Asset Class** Flood Protection Foxton Vegetation Management 500

## WHIROKINO SCHEME

#### **ASSETS**

- 11 km of drains
- 8 floodgates
- 2 km of stopbanks
- 1 pump station











## Himatangi Beach Himatangi Scheme Assets - June 2025 **Asset Class** Flood Protection Vegetation Management **●** Control Structure Foxton Beach Foxton Kilometers

## **HIMATANGI SCHEME**

#### **ASSETS**

- 51.8 km of drains
- 0.6 km of stopbanks
- 3 weirs

















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