

Appendix 5 Operational Outline

Appendix 5 includes the activities to be carried out, as identified in the Papangaio Te Wharangi Manawatū Estuary Management Plan March 2025. The activities are organised into 8 Activity Areas:

1. Overarching – includes items not included in other areas. It is understood that Mātauranga Māori is part of all activities.
2. Dune Protection – newly added and focusses on access across the dunes and protection mechanisms
3. Fauna – focus species are identified for specific protection with the hope that all native species will benefit
4. Flora - focus species are identified for specific protection with the hope that all native species will benefit
5. Pest Animals – A trap network has been design and requires installation and maintenance by the community
6. Pest Plants – Management units divide the Estuary in to manageable areas that will be sequentially addressed
7. Water Quality – Affecting all aspects of the Estuary but difficult to administer, so ways to assist improvement are being explored
8. Community Engagement – Many activities are proposed that will support the work of the other activities and contribute to participation and education

Each activity is categorised as follows:

To simplify the message of this summary; the main focus for each Activity, in this 10 year plan, is outlined in bold. All other activities are supporting this main focus.
Ongoing (blue). These activities are ongoing and an important routine to establish.
Finite (green). These are an activity to complete.
Finite (darker green). Once completed

Updates to this document will be made every 6 months after the Manawatū Estuary Management Team meetings in March and September. The final columns will briefly note the actions and status of each activity.

A5.1 Overarching Activities including Agency Responsibilities

Objective: Optimise outputs from all activities by overarching activities affecting more than one project area.

Table A5.1: Overarching Activities including Agency Reporting

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
Identify the process to recognise Manawatū River as a person	tbd					
Exercise rangatiratanga and manaakitanga over Papangaio and Te Wharangi	Hapū o Ngāti Raukawa	Continual				
Identify any discovery of cultural significance and carry out accepted protocol	All	As they occur		Findings (date)		
Identify and implement how to protect waahi tapu sites	Iwi; All					
Determine with Iwi how to manage a rahui	Iwi; All					
Horizons Annual Budget	Horizons	July annually		Per report		
Ramsar information sheet	DOC	7 yearly due 2030				
Ramsar high level COP reporting	DOC	3 yearly: 2025, 2028, 2031*				
Ramsar annual activity report	DOC	Annual				
Foxton Beach Coastal Reserves Management Plan review	HDC	2025			2 monthly community meetings started	
6 monthly meeting report on agency activities affecting Manawatū Estuary	HRC, DOC, HDC	March & September annually			21 March completed	

Dune Protection

Dune Protection was added in the last stages of the Management Plan

DUNE PROTECTION	Responsibility	Time	Cost	Status	March 2025	Sept 2025
Vehicle Access Management VAM				ADDED 2025		
VAM -Put in place a bylaw				ADDED 2025	Completed as part of Public Places bylaw	
VAM -Define designated areas. Produce maps				ADDED 2025	Vehicle map tabled	
VAM -Education programme				ADDED 2025	Plan for next newsletter	
VAM -Develop signage				ADDED 2025	Started with gps of existing signs	
VAM -Determine barriers; location and their maintenance				ADDED 2025		
VAM -Compliance mechanism				ADDED 2025		

Below Dune Protection Activities as per plan 2025. These are further detailed and developed with the above activities

Identify and implement; protection, rehabilitation, maintenance, and development for the dunes	All	ongoing		In progress
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Coordinate planning and implementation of supportive activities: • Flora - new planting, pest plants • Fauna - habitat, pest animals Community education and participation	Fauna Group Flora Group Pest Animals Group Pest Plant Group Community Engagement Group			
Plan and implement protection from: • Vehicle impacts • Walker impacts • Erosion Community education and participation	HDC Other MEMT members Community Engagement Group			Bylaw enacted Vehicle Access Management Plan agreed

A5.2 Fauna

Objective: Optimise habitat to support abundant populations for at least 4 species that are vulnerable, endangered, or critically endangered and located at Papangaio – Te Wharangi – Manawatū Estuary

Focus Species: **Toheroa, Tuna, Fern birds, Dotterel, Bittern (Added Katipo).**

It is expected that the improvement of conditions to support the selected species will support a wide range of other species at the Estuary.

Table A5.2: Fauna

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Actively collaborate with hapū and discuss activities with Iwi						
Maintain a full species list. Includes species, family and group classification. Held on www.metrust.org.nz	MET	Ongoing Annual review	Volunteer	2024 version completed	Updated	
Promote logging on to iNaturalist and metrust website*	Community Team			See CE		
Develop a programme for at least 4 species vulnerable, endangered, or critically endangered species located at the Estuary. Locations, numbers, history, research, how to improve populations.	WFT	Q4 2025 At least 4 plans prepared	Volunteer \$65 extract NZ bird data	Toheroa and bittern selected for research	Information building on MET website Coastal conference presentation - katipo	

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Carry out improvements & monitoring for the selected species of interest	WFT	Q1 2026 Regular monitoring started. Habitat improvements made	Volunteer		Monitored Bittern Fernbirds	
Additional Activities				ADDED 2025	Butterfly and moth programme with Horowhenua College National monitoring of Spoonbill Wader birds	

Activities for “Community engagement” from the Fauna Team

*(booklet from Manawatū Estuary Trust Like the one “Birds you might see at the Manawatū Estuary” by Terry Oliver-Ward

A5.3 Flora

Objective: Optimise habitat to support abundant populations of at risk and threatened species at the Estuary for at least 10 plant types; with at least 2 plant types suitable for each of the 3 ecosystems: Estuarine; Xeric and Dune Wetlands

It is expected that the improvement of conditions to support the selected species will support a wide range of other species at the Estuary.

The species may change but at least 10 species will have a dedicated programme for their protection and enhancement. Key species of interest at the time of writing, and likely to have a programme prepared for them, are:

Estuarine Ecosystem: Sea Sedge *Carex littorosa*; *Oxybasis ambigua*; NZ Musk *Thyridia repens*

Xeric Dunes and Dune Wetlands: Taatarake *Coprosma acerosa*; Half-star *Goodenia heenanii*; Sand Gunnera *Gunnera arenaria*; Autetaranga *Pimelea villosa*, Pingao *Ficinia spiralis*

Dune Wetland reintroductions: Matagouri *Discaria toumatou*; Spike sedge *Eleocharis neozealandica*; Pygmy clubrush *Isolepis basilaris*; *Juncus caespiticius*; *Mazus novaezealandiae impolitus*; *Pimelea actea*; Sand tussock *Poa billardierei*

It is understood that expertise and experience in plant propagation and protection exists among local hapū, local nurseries, individuals and national individuals and will be part of the programme or invited to enable optimum outcomes.

Table A5.3: Flora

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Actively collaborate with hapū and discuss activities with Iwi						
Maintain a full species list	MET	Ongoing Annual review		2024 version completed	Updated	
Promote logging on to iNaturalist*	Community Team			See CE		

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Develop a programme for at least 4 vulnerable, endangered, or critically endangered species ; and at least a total of 10 plant species. Include locations, numbers, history, research, how to improve populations, reintroduction approach	tbd	Q4 2025 Plan for 10 species prepared				
Implementation						
For all Plants selected Programmes: Carry out propagation, planting & monitoring for Dune reintroduction species	tbd	Q4 2025 Monitoring and habitat improvement started			Developing propagation for <i>Carex litorosa</i> ; <i>Oxybasis ambigua</i>	
Spinifex and pingao planted post weed removal every year	HDC	Annual Planting day			Planned for June	

Key Outcomes

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Finite (darker green). Once completed

A5.4 Pest Animals

Objective: Support a resilient indigenous species population that dominates the area through implementation of the pest animal management plan.

See: Animal Pest Control Operational Plan Manawatū Estuary 2024

Table A5.4: Pest Animals

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
ADMINISTRATION						
Iwi overview	Community Team/Justin	2024				
Pest animal webpage on www.metrust.org.nz and linked to WFT for traps	MET			Under construction	started	
Create open dialogue with affected parties	Community Team			See CE		
Baseline assessment – metrics	Horizons	August	Horizons time	underway	Tracking cards Chew cards planned	

Integrate existing registers/databases Trap NZ, Predator Free, Horizons etc.	WFT - Vai	December	Volunteer hours	underway	started	
Review pest list	MEMT	Annually Q4	Volunteer hours	2023 version completed	completed	
Amend Public Places Bylaw	HDC – Sean Community Team	2024		See CE	completed	
Create new Beach Access Bylaw	HDC	2026 – 2027		See CE	started	
FISH						
Fish protection – plan education, develop resources	tbd	2025 Q1		Not started		
Fish protection – launch education	Community Team	tbd		See CE		
Fish protection – devise compliance	tbd	tbd		Not started		
Fish protection – enable compliance	tbd	tbd		Not started		
MUSTELIDS, RATS, POSSUMS						
Mustelids <u>trapping</u> Plan	Horizons	August 2024	Horizons hours	started	completed	
Mustelids <u>trapping</u> Implement, data collection	WFT – Dave	Start 2025 Q1	tbd	tbd	Purchased 5 for dunes	
Mustelids <u>education</u> Plan, develop, launch	WFT – Vai	2024 Q4	Volunteer hours	started		
Rats <u>trapping & poison</u> Implement, data collection	WFT – Dave	2024 Q4	tbd	tbd	Installed 20	

Rats <u>education</u> Plan, develop, launch	WFT - Vai	tbd		Not started		
Possums <u>education</u> Plan, develop, launch	WFT - Nola				Started see metrust.org	
Possums <u>trapping</u> Implement, data collection	WFT - Dave					
OTHER PEST ANIMALS						
Rainbow skink <u>education</u> Plan, develop, launch	WFT - Vai	2024 Q4	Volunteer hours	started		
South African Praying Mantis Develop programme	WFT - Peta	2024		started		
Spiders Develop programme	MET - Arnim					
Wasps - paper	WFT - Dave	2025 Q3		started – see metrust.org.nz	started	
Canada geese (monitor/guide Fish & Game)	Fish & Game					
Cats – Feral & Domestic	DOC, SPCA					
Hedgehogs	WFT - Nola					
Pacific Gulls Develop Programme				ADDED 2025		
Update and maintain education programmes for rainbow skink, South African Praying Mantis, Spiders, Canada Geese, Cats, Hedgehogs, Pacific Gulls						

A5.5 Pest Plants

Objective 1: To reduce or eliminate pest plants to allow native plants to take their place.

Objective 2: To ensure that where pest plants are removed suitable native plants are available to replace them before new pest plants take over again.

Objective 3: To ensure that once weeds are eliminated, regular inspections occur to remove any regrowth before it becomes a problem.

See: MEMT PEST WEEDS – Ramsar Dr. Bob Hoskins , Foxton Beach; Arnim Littek, Foxton Beach

Table A5.5: Pest Plants

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
LIDAR Survey	Horizons	February 2025			Delayed to next year	
Drone survey	Horizons	November 2023	\$2.5K	completed	completed	
Marram ID AI model	Horizons	December 2024	\$7.5K	started	completed	
Identify pest plant priorities	Arnim, Bob	June 2024	Volunteer hours	Completed	completed	
Identify access to fern bird flats and Waitarere Forest	Horizons	October 2024	nil	started	Contact via Horizons completed	
Identify zones, map them, identify weeds within each zone	Arnim, Bob	November 2024	Volunteer hours	started	completed	
Zone E, estuarine edge Manual weed control	Bob	Weekly	Volunteer hours	ongoing	ongoing	
Zone S, spit Contractor weed control	Horizons	Annually	\$60K 2025	Date for 2024-25 tbd	ongoing	

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
Zone D Dunes Remove priority 1 Marram	HDC & Team	September & May annually	tbd	started	Plans started	
Plant areas where Marram is removed	HDC & Team Dune Garden Team	September & May annually	tbd	started	As of Flora	
Pinewood Road control	Horizons				As of S spit	
Zone M marshes control	tbd					
Regional Response Control sea spurge, bone seed, old mans beard, woolly nightshade and moth plant Oversea spartina control	Horizons	all		ongoing	ongoing	
Regional Response Control sea spurge and spartina	DOC	all		ongoing	ongoing	
Community education -cleaning watercraft -weed seed risks -weed dumping management -what to plant -adjacent estuary resident responsibilities	Community Team			See CE		
Community weeding, day or routine, such as for Zone E	Community Team			See CE		

Activities for "Community engagement" from the Pest Plant Team

A5.6 Water Quality

Objective: To achieve a standard of healthy water quality where native species and people can thrive and prosper.

Table A5.6: Water Quality

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Actively collaborate with hapū, engage with iwi & statutory managers		Start Q3 2024 Ongoing quarterly		Started	Initial iwi/hapu conversations Met Horizons and continue email correspondence	
Water Quality Metrics						
Escalate any new or urgent concerns to statutory managers		As required			Seawater contamination episode: - Requested information from HRC. - Detailed information received. - Now working on recommendation to agencies.	
Make recommendations to the statutory managers through MEMT.		As required			Working on: - Simplified data reporting - Improved notice to public on contamination events	

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Ask questions of statutory managers, and scientists to assist understanding		As required				
Report current state, trend and planned actions to MEMT Prepare report.		MEMT 6 monthly report		REMOVED 2025	See WQ Reporting section	
Distribute report	Community	6 monthly newsletter input		REMOVED 2025	See WQ Reporting section	
Water Quality Reporting						
Current state Trends over time Planned actions					Under development	
Prepare collateral including slogans such as 'Can I Swim' and 'Can I fish'					Not started Will work with CE signage	
Prepare Reports for review by MEMT					Planning for next newsletter	
<u>Distribute/publicise reports</u>					Next newsletter	
Resource Consents						
Notify MEMT of any resource consents applications relevant to water quality				NEW ACTIVITY MARCH25	Actioned two submissions, overlooked notifying MEMT.	
Write <u>submissions on Resource consent applications</u> when relevant				NEW ACTIVITY MARCH25	Wrote submissions: - PNCC: Ashhurst Domain, supporting plan to further develop the wetland.	

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
					- HDC: in support of proposed Local Waters Bylaw and requesting more specific inclusion of water quality objectives in the Manawatu River and its tributaries etc.	
Work with statutory managers to devise process that helps ensure relevant consents are complied with		As required		ongoing	Connected with relevant HRC specialist	
Carry out process, including reporting or escalating any infringements		As required			Closed landfill at Foxton: - Requested and received resource consent and related documents from HRC. - Waiting on WQ team to review and advise next steps, if any.	
Report current state, trend and planned actions to MEMT Prepare report.		MEMT 6 monthly report			As of report	
Distribute report	Community	6 monthly newsletter input		REMOVED 2025	See WQ Reporting section	
Engage with other relevant groups						

Activity	Responsibility	Time & Measures	Cost	Status	March 2025	Sept 2025
Manawatū River Users Advisory Group		ongoing				
Water Protection Society		ongoing				
Wetland Trust		ongoing				
Report current state, trend and planned actions to MEMT Prepare report.		MEMT 6 monthly report				
Distribute report	Community	6 monthly newsletter input		REMOVED 2025	See WQ Reporting section	

A5.7 Community Engagement

Objective: Have effective communication channels to all interested parties to ensure support is garnered and collaboration opportunities available. Include strong engagement with schools, and establish high National visibility of the Estuary as a Ramsar site.

Table A5.7: Community Engagement

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
COMMUNICATION						
Weave a Ngāti Raukawa perspective into our communication and incorporate the voice of the hapū of Ngāti Raukawa	Community engagement group lead with support and guidance from Ngāti Raukawa	Quarterly				
Compile and maintain lists of communication avenues: newspapers; community newsletters/groups; hapū links; agencies; radio; social media			Volunteer hours	List compiled.	completed	
Prepare document with key message points to start with: what we are doing, why we are doing it, who is involved, when it is happening and how people can be involved in the future	S. Ferguson	9/4/2024	-	completed	completed	
We will provide input and content for inclusion on the MET website on a		2 times per year minimum				

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
regular basis, at least twice a year with the newsletter.						
Active liaison, implementation and operation of the Foxton and Foxton Beach Community Plan		ongoing				
NEWSLETTER						
We will prepare and distribute a community newsletter at least twice a year. We will provide an opportunity for all groups to submit ideas and content for consideration and inclusion.	Sam and Nola	November 2024	Printing - \$600/pa	In Progress	Inaugural newsletter December 2024	
We will maintain a nominated newsletter co-ordinator	Sam and Nola	Ongoing		Ongoing		
We will make the community newsletter available on the MET website, distribute via social media channels, provide printed copies in targeted locations, distribute through agency communication channels, and distribute to local groups.				First newsletter November 2024	Carried out	
We will identify a way to register email addresses for our newsletter and store them securely.						
AGENCY COMMS INVOLVEMENT						

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
We will maintain relationships with agencies (HDC, DOC, HRC) and their comms staff that are able to participate in communication to ensure effective messaging	All MEMT			ongoing	ongoing	
We will undertake a communication exercise following adoption of this plan, to ensure agencies within the catchment of the Manawatū River are aware of the work we are doing and our vision.						
SCHOOLS						
We will invite local Foxton and Foxton Beach schools to all of our community events.					Horowhenua College see Fauna	
We will maintain annual contact with schools in Foxton and Foxton Beach.						
We will work to <u>engage all schools within the Horowhenua</u> to ensure they are aware of the work we are doing and the opportunities for engagement.						
SIGNAGE						
We will work at identifying suitable <u>signage locations and content throughout the estuary area</u> ; both for information purposes and education purposes.					GPS stocktake planned	

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
COMMUNITY ENGAGEMENT						
Identify and maintain a contact list of people and groups that we are connected with and who are connected with us.					Carried out	
EVENTS						
We will run at <u>least three community events per year</u> , possibilities include welcome/farewell the birds, planting events, weeding events, weed plant swap, and expert speakers					Farewell to the birds March	
FUNDING						
We will maintain relationships with HRC and HDC through annual plan and long term plan processes to ensure funding is sought.						
We will work to build relationships with DOC to access funding opportunities.						
We will seek external funding opportunities with at least one external funding application per year.					Sponsorship agreed to at meeting. Seek sponsor for newsletter	
RANGER						
We will work towards <u>establishing a ranger role in 2027/2028</u> financial						

Activity	Responsibility	Time	Cost	Status	March 2025	Sept 2025
year that is based at Foxton Beach, this will include a job description, funding sources, and key outcomes / benefits.						

End of Document