

TANK DRAFT IMPLEMENTATION PLAN

(Version 5 – 12 December 2018)

TANK – DRAFT IMPLEMENTATION PLAN

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Date: 29 November 2018

Draft Version	Sent to	Issued	Comments incorporated since issue date
V3.0	TANK Members	12 June 2018	TANK Group members (individual comment) HBRC Staff TANK Group members at TANK meeting 41 (27 June 2018) Treaty Partner Working Group
V4.0	TANK Members	20 July 2018	HBRC Staff
	RPC members	14 August 2018	TANK members Regional Planning Committee
V5.0	RPC members	12 December 2018	

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Action 1: CATCHMENT COLLECTIVES & INDUSTRY PROGRAMMES

	Policy Obj	TASK DESCRIPTION	LEAD AGENCIES	PARTNERS	MEASURED BY	TIMEFRAME
1		Establish sub-catchment boundaries for land owner collectives, and identify properties and contact details for collectives Identify where farm plans and catchment plans are to be prepared	Industry Groups Farmer Reference groups Federated Farmers	HBRC – Land Management, IT, Land Science, Environmental Science Beef and Lamb Dairy NZ/Fonterra Ravensdown Hort NZ Mana whenua groups Fish and Game NZ Winegrowers	Development of sub-catchment maps Identify where farm plans applicable	12 months from notification of the Plan
2		Templates for operating and managing the catchment collectives to be developed	HBRC – Policy and Land Management	Farmer reference groups Industry Groups Service providers Mana Whenua groups	Templates available	Mid 2019
3		Catchment collective plans developed and approved	Catchment collectives HBRC – Catchment Management	Industry Groups Independent Facilitators/Assessors	Plans for priority catchments approved	Industry/collective programme or farm plan in priority 1 catchment by 2023 Priority 2 by 2026 Priority 3 by 2029
4		Assess industry programmes in relation to plan objectives, and Schedule 5 requirements. Identify where gaps exist and develop additional programme requirements to bridge the gap between National programmes and catchment priority requirements.	Industry Groups; <ul style="list-style-type: none"> • Hort NZ GAP, • SWGNZ • Fonterra Sustainable Dairying etc. • Any existing pastoral initiatives e.g. Atkins Ranch 	HBRC – Policy, Catchment Management	Comprehensive industry programme	In priority 1 catchment by 2023 Priority 2 by 2026 Priority 3 by 2029
5		Identify properties already subject to industry programmes	Industry groups	HBRC – Catchment Management	Properties subject to industry programmes identified	12 months from notification of the Plan

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6		<p>Catchment collective and Industry Group reporting and recording of information, including:</p> <ul style="list-style-type: none"> Information management systems in place (GIS), held by Council, with multi-party access provided Monitoring programmes 	<p>HBRC – Team Leader, Data; FEMP Project Coordinator HBRC Science</p>	<p>NCC, HDC Catchment collectives Service providers Industry Groups</p>	<p>Information management system to be developed by HBRC by end 2019. Information being recorded</p>	<p>End 2019 Priority 1 catchment by 2023 Priority 2 by 2026 Priority 3 by 2029</p>
7		<p>Annual meetings¹ with the Implementation Partners to provide regular progress reports about implementation actions, any relevant SOE information, and reporting on any implementation issues arising and alternative solutions, including adoption of continuous improvements as they arise.</p>	<p>HBRC – Implementation Team, Policy, Science, Catchment Management</p>	<p>Signatories to this Plan</p>	<p>Annual meetings of implementation partners</p>	<p>Annually</p>
8		<p>Continue to hold and develop a list of ‘Approved Providers’ for nutrient budgets and FEPs include information about service providers capable of delivering but not limited to:</p> <ul style="list-style-type: none"> Independent Facilitation Catchment plan development Information recording and reporting Auditing 	<p>HBRC – Catchment Management, FEMP Project Coordinator,</p>	<p>Industry Groups</p>	<p>List produced and updated annually</p>	<p>Within 18 months of notification of the Plan Change</p>

¹ Note the more regular meetings may occur, particularly during the establishment phase of the implementation plan, however this is set as a minimum requirement.

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Action 2: REDUCE SEDIMENTATION & MANAGE EROSION RISK						
	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
9		<p>Council to prepare farm scale information about sediment loss risk to assist in making decisions about mitigation measures using tools such as SedNet, LUC, and LUCI.</p> <p>Note: Identification of high erosion risk is identified within the Priority Catchments within Schedule 3</p>	HBRC – Land Science	HBRC – Data Beef and Lamb Dairy NZ/Fonterra Ravensdown Hort NZ groups	All catchment collectives and industry programmes have GIS based information/maps to identify risk/priority areas/LUC info etc.	Ongoing (as work proceeds in priority catchments)
10		<p>Landowner assistance programmes continued</p> <ul style="list-style-type: none"> Planting materials available for soil conservation work Information about appropriate mitigation measures according to sediment loss risk Funding to support planting programmes (specifically proposed for erosion management). <p>(Note: Some sites within TANK catchment may receive management through Ecosystem Prioritisation project)</p>	HBRC – Catchment Management, Biosecurity – Biodiversity (advisory role)		Plant material available each year Annual Plan funding Readily available information about mitigation measures Reporting on TANK sites identified through the Ecosystem Prioritisation project	Ongoing
11		Ensure best practice information available to landowners/managers in relation to reducing erosion risk and sediment losses (relevant also for nutrient management in action 2.13)	HBRC – Catchment Management Industry Groups		Availability of information to landowners Good practice direction in GAPS and industry programmes	Ongoing
12		Regularly review the uptake of physical improvements/mitigation measures within the catchments to manage erosion risk, in particular within those catchments identified as high erosion risk	HBRC	Catchment collectives Landowners Mana whenua groups DOC	Short term- increase in total planting and other mitigation measures for erosion management. Long-term ² reduction in sedimentation of rivers/tributaries and receiving environment	Annual review over the plan lifetime.

² Long-term in this instance is envisaged to extend beyond the timeframe of this plan iteration and to continue into future plan iterations.

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Action 3: REDUCE NUTRIENT CONTAMINATION OF FRESHWATER

	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
13		Preparation of and application of nutrient management plans by high N and P loss risk land uses, using tools such as Overseer, SPASMO, and APSIM. Schedule 3 will identify where these activities are a priority. Note: Information about where concentrations of N and P are impacting on freshwater quality is identified Schedule 1.	All Industry Groups Catchment collectives	HBRC – Environmental Science, Land Science, FEMP Project Coordinator	Farms with nutrient management plans	All high risk properties in priority 1 catchments by 2023 Priority 2 catchments by 2026 Priority 3 catchment by 2029
14		Gather and record data about current land use practices, processes and mitigation measures to reduce contamination, especially in relation to high risk activities e.g. use of tile drains	HBRC – Catchment Management Catchment collectives Industry Groups		A robust database of information within each of the priority catchments	All high risk properties in priority 1 catchments by 2023 Priority 2 catchments by 2026 Priority 3 catchment by 2029
15		Ensure best practice information is available to landowners/managers in relation to reducing nutrient losses (relevant also for sediment management in action 2.9)	Industry Groups	HBRC – Land Management	Availability of information to landowners Inclusion of good practice direction in GAPS and industry programmes	Ongoing
16		In priority catchments develop an inventory of properties likely to exceed a nitrogen loss rate of 20kg/ha/y and ensure preparation of nutrient management plan	Industry groups	HBRC – Catchment Management		Commence 2019 – ongoing
17		Information gathering and data management of nutrient loss to monitor the effectiveness of the nutrient management plans and to enable the development of nutrient loads and limits if required.	HBRC – Environmental Information	Industry Groups Consents Compliance	Annual review	Commence 2019 – ongoing
18		Review the monitoring results to determine whether there have positive trends, and where there have not determine whether alternative measures are available and appropriate to address nutrient contamination freshwater	HBRC Science	Tāngata whenua	Annual review	Ongoing

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Action 4: RIPARIAN MANAGEMENT & STOCK EXCLUSION

	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
19		Stock including cattle, deer & pigs excluded from rivers, lakes and wetlands in flat/rolling country as priority, and also where bank erosion is identified as a significant and/or long term problem to water quality. This includes the exclusion of sheep unless required as a management tool to promote riparian plant growth and a form pest control.	Beef and Lamb Federated Farmers Catchment collectives	HBRC Compliance All Stock-owners adjoining river	Length of waterway with stock exclusion, and type of situation protected (i.e. erodible bank, flat country)	2023
20		Undertake an annual audit of the total expanse of riparian margins which have been fenced and or planted to exclude stock from the river, lake or wetland.	HBRC Catchment Management Landowners Catchment Collectives		Increased annual amount of waterways where stock are excluded.	Annual review for the lifetime of the plan
21		Funding available for riparian planting (promoted as part of managing weed growth and providing biodiversity and water quality values)	HBRC – Strategic Planning Team	Industry Groups Catchment Collectives	Quantum of grants provided each year	Ongoing
22		Information on useful riparian planting solutions produced – especially for Karamu/Plains in relation to drainage and flooding objectives	HBRC – Biosecurity - Biodiversity, Water Quality/Ecology, Marine and Coast, Steve/Ant- Open Spaces Catchment Management	Biodiversity Guardians of HB DOC Fish & Game Mana whenua groups	Good planting information available	Mid 2019
23		Funding available for riparian planting as part of Karamu/Plains riparian shading programme, giving priority to ecosystem sites which deliver both biodiversity and other outcomes e.g. water quality, erosion control, public access, mahinga kai.	HBRC– Strategic Planning Team Biosecurity – Biodiversity (advisory) Land science, Water Quality/Ecology, Marine and Coast	Industry Groups Catchment collectives	Quantum of grants provided each year	Ongoing
24		Riparian margins of waterways particularly in priority catchments planted for shade. An initial assessment of riparian margins is required to determine whether riparian planting is appropriate.	All Industry Groups (esp. Hort groups for Pipfruit, vegetables, kiwifruit) HBRC – Catchment Management,	Catchment collectives	Length of water way planted and proportion of waterway shaded.	All properties in priority 1 catchments by 2023 Priority 2 by 2026 Priority 3 by 2029
25		Continue with Te Karamu Strategy and extend to all public land next to rivers	HBRC – Open Spaces, Asset Management	DOC Fish & Game	Riparian margin register to be developed to	To be compiled within 18 months of notification

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				Mana whenua groups Biodiversity Guardians of HB	identify land suitable for planting	
26		Promote and provide information about appropriate riparian planting including information on indigenous local seed sourcing, through education, communications e.g. social media, (especially in conjunction with stock exclusion, fencing, setbacks and within urban developments) 'capacity building' among communities/industries (and even farm plan providers) through workshops. This includes the promotion of assistance and incentives available to farmers for fencing and planting.	HBRC – Communications, Catchment Management, Biosecurity – Biodiversity, NCC, HDC Mana whenua groups – Kahutea Strategy	Landowners Schools Fish & Game National Wetland Trust Biodiversity Guardians of HB	Success to be measured in the short term by the increase in the number of waterways planted (metres). Acknowledgement that clean water as an outcome could take decades but is the ultimate goal, including reduced sediment loads to the receiving environments (Ahuriri and Waitangi Estuary and the coastal environment)	Ongoing
27		Undertake riparian planting with mana whenua groups/hapu/marae other community groups and schools	Iwi/hapu/marae/community groups/schools	HBRC – Open Spaces, Catchment Management, EnviroSchools Department of Conservation Fish & Game	Number of planting events per year, number of trees/plants planted	Ongoing – reporting annually
28		Continue Macrophyte growth control in lowland rivers (weed boat cutting and weed removal) ensuring this is programmed to avoid conflict with the native fish spawning season. Continue this as a management tool until other management outcomes take effect (e.g. shading).	HBRC – Environmental Science, Asset Management	Mana whenua groups	Number of weed boat events per year which avoid conflict with native fish spawning season.	Ongoing
29		Monitor the impact of the riparian programme on water quality and ecology. Review trends of water quality outcomes on habitat and ecosystems.	HBRC Science	DOC Mana whenua groups	Annual improvements to water quality, habitats and ecology.	Annual review ongoing for the lifetime of the plan

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Action 5: IMPROVE FRESHWATER/ESTUARINE WETLAND & LAKE MANAGEMENT

	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
30		Continue to develop inventory of wetlands and prioritise in terms of their biodiversity value	HBRC – Land Science, Water Quality/Ecology, Biosecurity – Biodiversity, Works Group & Open Spaces DOC	Forest & Bird Fish and Game Biodiversity Guardians of HB	Information about location and state of existing wetlands	2019
31		Enhancing existing and identifying areas where reinstatement and creation of additional wetlands can be created <ul style="list-style-type: none"> Restoration of 100ha existing wetland every 5 years Increase in additional wetland by 5% over 10 years (105ha total) With a 10% overall increase in additional wetland within the TANK catchments by 2050. 	HBRC – Land Science, Water Quality/Ecology, Catchment Management, Works Group & Open Spaces DOC Fish & Game Biodiversity Guardians Mana whenua groups	Industry Groups Landowners Biodiversity Guardians of HB	Restoration of 200ha existing wetland area created within 10 years 105ha additional wetland created within 10 years Long-term time frame of 10% increase by 2050.	Within 10 years from notification
32		Funding available for wetland protection and improvements	HBRC	DOC Central Government Fish & Game Biodiversity Guardians/Trust Mana whenua groups	Quantum of wetland funding provided	On-going
33		Provide information about <ul style="list-style-type: none"> new wetland development and sustainable wetland management how to manage wetlands to improve cultural, ecological, recreational, food gathering opportunities and outcomes 	HBRC - Biosecurity-Biodiversity, Communications,	HBRC – Land Science, Catchment Management, Water Quality/Ecology DOC Fish & Game Mana whenua groups National Wetland Trust Biodiversity Guardians of HB	Development and dissemination of education material, workshops, social media, communications	Ongoing

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34	Promote wetlands as a tool for landowners to improve nutrient and sediment management.	HBRC – Catchment Management,	HBRC – Catchment Management, Communications Industry Groups Landowner collectives Federated Farmers DOC Fish & Game Mana whenua groups	Increase number/size of wetlands on private land	Ongoing
35	Support collectives being established for lake catchments as priority in schedule 3.	Lake Poukawa Trust DOC Fish & Game Landowners	HBRC – Catchment Management, Water Quality/Ecology	Number of collectives established	Ongoing
36	Encourage capacity building/education initiatives and communication around wetlands and lakes for community/industry/farm plan provider.	HBRC – Communications National Wetland Trust	Landowners Schools Fish & Game Biodiversity Guardians of HB	Number of education initiatives underway	Ongoing
37	Review and monitor wetland health and existence, and provide reports on the state of the wetlands to help assess the changes seen in the monitoring.	HBRC Science DOC	Mana whenua groups	Annual monitoring reports	Annual for the lifetime of the plan

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Action 6: REDUCE THE IMPACT OF STORMWATER/WASTEWATER DISCHARGES						
	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
38		<p>Develop/maintain a programme for the creation and implementation of site management plans for 'high risk' activities in urban stormwater areas.</p> <p>Create a Site Management Plan template to assist in assessing risk consistently between TLA's.</p> <p>Set-up monitoring and audit regime in collaboration with TLAs.</p>	NCC and HDC HBRC – Asset Management, Policy, Consents and Compliance	Industrial Sector	Template completion. Programme initiation and number of risk activities with site management plan	Template and programme to be completed within 18 months of notification of Plan Change. Programme and sharing of information ongoing with annual review with an annual audit of the high risk activities.
39		<p>Undertake an urban stormwater network stocktake and establish timetable for developing integrated stormwater management plans including through resource consent processes to include:</p> <ul style="list-style-type: none"> • Information gathering, • Preparation of catchment management strategies • Ranking of catchments in priority order • Implementation • Monitoring <p>Encourage/maintain MERI – Monitoring, Evaluation, Reporting and Improvement.</p>	HBRC – Asset Management, Consents/ Compliance, NCC and HDC	Property developers	Programme of work for each council. Links to LTP and annual plan funding	Programme to be adopted by 2020.
40		<p>Establish a joint council education programme (for the purpose of educating the public), through collaboration between council staff (e.g. policy, engineers and communications), to develop programme topics, milestones, events etc. to deliver clear messages to the public how to enhance the quality of stormwater, and ultimately our river, estuary and coastal environments.</p>	NCC, HDC, HBRC – Communications, Policy, Asset Management, Catchment Management	HBLASS DOC MfE HBRC - Biosecurity-Biodiversity	Greater community awareness of ways to improve stormwater quality, including reduction of contaminants within the receiving environments (Ahuriri and Waitangi Estuary and the coastal environment)	Implement within 18 months of notification of the Plan Change. Education programme to be ongoing.
41		<p>Carry out review of bylaws and engineering standards for stormwater network design and control of stormwater inputs to ensure consistency and alignment between councils.</p>	HBRC – Consents, Asset Management, Policy,		Bylaws and engineering standards are consistent and aligned	2023

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			NCC, HDC			
42		Encourage and promote wetland protection, management, enhancement and creation and other opportunities for increasing stormwater infiltration where feasible within new urban and industrial developments, roading realignment and construction and when installing and designing stormwater networks.	NCC and HDC	HBRC – Policy (Statutory advocacy), Consents, Asset Management	Increased in the number of wetlands within urban and industrial environments	Ongoing
43		Encourage an adaptive management approach (including short, medium and long term actions) to form the basis of applications for discharge consent (larger-scale) that result in material improvements over time in stormwater quality entering our waterways including the Ahuriri and Waitangi estuaries.	NCC, HDC, consent applicants HBRC – Consents, Asset Management,		Receipt of an increased number of discharge consent applications which promote adaptive management	Ongoing
44		Understand and continually review the capacity and flows in sewage networks and the impacts of stormwater inflow and groundwater infiltration, not excluding the impact on the Ahuriri and Waitangi estuaries as the downstream receiving environment. Develop solutions to reduce risks of water contamination by sewage.	NCC HDC	HBRC - Consents	Sewerage net capacity understood Solutions developed and implemented.	2018 onwards
45		Establish joint planning approach to management of existing and new on site wastewater systems. Identify where wastewater poses risks to groundwater and develop joint programmes for resolving groundwater contamination risks from on-site systems, especially those in the aquifer protection areas of the Heretaunga Plains	JWG Drinking Water - NCC, HDC, DHB, HBRC – Policy, Science, Catchment Management		Existing Joint Management Group for drinking water continues to operate	Ongoing
46		Investigate on-site stormwater storage options within new and existing buildings/developments, to ensure appropriate stormwater management e.g. timely release to the network; maintenance of the groundwater quality and quality of stormwater into the receiving environment.	NCC HDC	Developers	Quantum of expenditure on research and investigation.	Ongoing
47		Monitor the urban streams and receiving environments to determine whether the concentration and loads of contaminants within stormwater and wastewater has reduced and resulting in improvements to water quality.	HBRC	NCC HDC	Improvements to the water quality of the urban streams and state of the receiving environments e.g. improvements to DO in urban streams, more fish species noted etc.	Ongoing

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Action 7: IMPROVE WATER ALLOCATION/USE EFFICIENCY						
	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
48		Develop the IRRICALC water allocation model to provide consistent water demand calculations for range of crops in Hawkes Bay	HBRC – Environmental Science	Industry Groups Plant and Food/Aqualinc INZ	Accurate and consistent models for determining water demand are available	End 2019 ³
49		Continue to develop innovative, flexible and efficient water management systems that maximise water efficiency and water use	HBRC – Environmental Information Industry Groups Water users and irrigators Irrigation NZ	Landwise	Alternative water management frameworks developed. Water use efficiency improves to 80%	Ongoing
50		The development of web-based information management systems to support flexible water management	HBRC – IT, Environmental Information	Permit holders INZ Industry groups	Web-based systems being available	???
51		Design operation and management options for stream flow enhancement.	HBRC – Engineering	Permit holders in affected streams	Scheme designed and constructed. Stream flow monitoring shows it is enhanced.	List of streams and dates still required
51a		Investigate options for water storage and release to manage stream depletion effects in Ngaruroro	HBRC Enviro science/info Consents Compliance Policy Asset Management	Needs substantial water user and iwi input in design, funding and management	Progress towards feasibility assessment and implementation if feasible	If feasible - within ten years
52		Continue to develop understanding, technology and uptake of efficient water use systems and technology including through irrigation efficiency promotions	HBRC – Environmental Science, Catchment Management	INZ Industry Groups	Quantum of expenditure on efficiency programmes Water use is efficiency improves to 80%	Ongoing
53		Continue to develop understanding, technology and uptake of efficient water use systems and technology including through monitoring, measuring and reporting urban water use, supply and demand, and projecting growth demands	NCC HDC	MfE	Measures of urban water use efficiency developed	

³ This is being built in to this financial years (2018-19) work programme but needs to be confirmed to bring this forward so that the model is available in advance of the May 2019 consent renewals

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					Water use efficiency meeting an Infrastructure Leakage Index of 4.	
54		Establish a joint planning approach to management of risks to un-reticulated domestic water supplies. Identify where water supplies pose quality or quantity risks to communities and develop programmes for resolving issues, especially for communities in the margins of the Heretaunga Plains where groundwater levels pose a risk (also see item 38)	JWG Drinking Water - NCC, HDC, DHB, HBRC – Policy, Science, Land Management	Marae (mana whenua groups)	Joint management group established by end 2019	Ongoing
55		Investigate alternative ways to retain water within the landscape (not limited to wetlands) e.g. <ul style="list-style-type: none"> Increasing organic matter and water holding capacity Changing management of land subsurface drainage systems Other options Trial and Implementation of alternative options to improve water use efficiency.	Industry Groups Landowner Collectives	HBRC Science Landscape Universities/research organisations	Investment in research and investigation	Ongoing
		TLA Deliverables	HDC NCC			TLA's to provide a programme of dates which can be inserted here

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Action 8: INCREASE ECOSYSTEM HEALTH AND BIODIVERSITY						
	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
56		Continue to work with landowners and mana whenua groups through annual asset management plans to improve fish spawning of both indigenous species and trout in areas identified as appropriate spawning sites.	Mana whenua groups Landowners HBRC	Fish & Game NCC HDC DOC	Increased fish spawning habitat	Ongoing
57		Work with all the custodian of lands/wetlands to enhance indigenous vegetation by protecting existing and new planting.	HBRC – Land science, Biosecurity- Biodiversity	DOC Mana Whenua groups Landowners Biodiversity Guardians of HB	Increase in indigenous vegetation cover and ecological integrity of streams Reduced sediment load in streams Reduction in pest plants	Ongoing
58		Increase connectivity of waterbodies and terrestrial ecosystems.	HBRC – Biosecurity- Biodiversity	DOC Mana Whenua groups Landowners Biodiversity Guardians of HB	number of project areas which focus on connecting a water body and a terrestrial system	Ongoing
59		Identify location of existing pumps where they inhibit fish passage to and from Ahuriri & Waitangi Estuary in particular (but not limited to the estuaries). Develop a programme for upgrading existing pumps or providing alternative solutions to enable fish passage.	HBRC – Water Quality/Ecology	Mana whenua groups DOC Fish & Game	Phasing out of existing pumps. Increased fish passage/movement.	Ongoing.
60		Monitor the health and number of fish species (native and trout) within the TANK Catchments. Review trends over the lifetime of the plan to determine whether mitigation measures to improve water quality have resulted in improvements to ecosystem health and biodiversity.	HBRC – Water Quality/Ecology	Mana whenua groups DOC Fish & Game	Increased numbers and improved health of fish species	Review annually for the lifetime of the plan
61		Monitor the quantum of indigenous planting (aquatic and terrestrial) within the TANK catchments. Review if trends occur between increased native vegetation and improvements to biodiversity and ecosystem health. Monitoring programme to be developed to enable this to occur	HBRC – Land science, Biosecurity- Biodiversity	Mana whenua groups DOC Forest & Bird Landowners	Monitoring programmes developed Increased quantum of native vegetation. Positive correlation	Monitoring programme to be established mid- 2019. Sites to be visited on a five yearly rotation

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				Biodiversity Guardians of HB	between planting and biodiversity.	
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Action 9: ONGOING COMMUNICATION, COMMITMENT & INVOLVEMENT						
	Policy Obj	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
62		Communicate progress to the wider community made toward meeting TANK Plan objectives	HBRC Communications	Industry Groups Catchment Collectives	Fast facts progress	Ongoing
63		Regularly inform the public of community projects (such as riparian planting days) and identify ways in which they can be involved in organised events via website, Facebook, community newspapers etc.	HBRC – Communications, Land Management	Biodiversity Guardians of HB Mana whenua groups Community Groups	Number of people in attendance & number of events	Ongoing
64		Install river name signage throughout the catchments, this will provide people with a sense of place and ownership over the waterway and surrounding environment.	HBRC – Open Spaces, Works Group, Asset Management, NCC, HDC	Mana whenua groups Community Groups	Number of waterways ‘named’	Ongoing
65		Support riverside and estuary based activities which bring people to the waterways. E.g. HB Trail cycling events, Country 2 Coast, HB Marathon, Iron Māori etc.	HBRC – Transport Planning, Open Spaces, Communications, NCC, HDC, Tourism HB, Recreational Industries	HBRC - Biosecurity-Biodiversity	Number of events each year	Ongoing
		Develop a communication strategy/plan for the TANK catchments for approval by RPC to achieve environmental improvements through education (particularly of children). This may be an independent-led initiative or linked with EnviroSchools – areas of focus to be on: <ul style="list-style-type: none"> • Stormwater quality • Urban water efficiency 	HBRC communications	RPC	Approval by RPC to strategy. Commitment to funding education from RPC	Within 6 months of notification of the plan.

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Action 10: INVESTIGATIONS AND MONITORING

	Policy Obj	TASK DESCRIPTION	LEAD AGENCIES	PARTNERS	MEASURED BY	TIMEFRAME
66		Develop an Investigation and Research Programme for the Ahuriri Estuary and Waitangi Estuary to better understand hydrology and water flows, contaminant inputs, estuary flows and function. Collect and collate data on sediment accumulation and algal growth, to include investigation/monitoring of sediment loads in the receiving environments and developing further understanding of its impact.	HBRC – Water Quality/Ecology, Marine and Coast, NCC Mana whenua groups/Mana Ahuriri Trust	DOC, DHB, Te Taiao Environmental Forum, Forest & Bird, Ahuriri Estuary Protection Society, Landcorp and HB Airport	Better understanding about estuary functioning	Ongoing
67		Undertake further research and investigation into: <ul style="list-style-type: none"> Nutrient pathways, concentrations and loads in rivers and coastal receiving environments Nutrient uptake and loss pathways Measures to reduce nutrient loss 	HBRC – Land Science, Water Quality/Ecology, Industry Groups	Industry groups Catchment collectives Sustainable Farming Fund MPI	Improved understanding about sources and pathways Improved understanding about mitigation measures	Ongoing
68		Develop mitigations or land management responses to address nutrient loss risks in tile drained land	HBRC – Land Management, Land Science, Water Quality/Ecology Industry groups/land owners (Heretaunga plains)	Catchment collectives	Development of management and mitigation measures	Commencing 2025
69		Increase monitoring of different metrics that better capture overall Ecosystem Health	HBRC – Environmental Information	Mana whenua groups, NIWA	Annual reporting SOE monitoring	Ongoing
70		Develop protocols, make tools, guides and workshops available to landowners, marae/hapu and community groups to monitor water quality. Including developing clarity around the various levels of public monitoring available and the required outputs from each level (dependant on reason for undertaking monitoring) <ul style="list-style-type: none"> Citizen science/local scale monitoring Schools/education programmes Kaitiakitanga/Matauranga Māori On-Farm monitoring Higher level independent monitoring (similar to SOE) 	HBRC –, Land Science, Environmental Science	HBRC, Beef + Lamb, Mana whenua groups Federated Farmers NIWA MPI	Water quality data is collected by catchment collectives, marae/hapu and community groups	Ongoing

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		Develop templates for higher level monitoring, and provide support for all other levels of monitoring. Seek funding where available from central government.				
71		Establish information management systems to collate and report on data collected by community groups and collectives	HBRC – Environmental Information	NIWA LAWA	Information gathered is valued and used	Ongoing
72		Undertake ongoing investigations to better understand the Heretaunga Aquifer and the consequences of increasing or decreasing abstraction in order to establish a sustainable equilibrium that reflects the precautionary principle and climate change trends over time.	HBRC		Information gathered is valued and used in future plan development and decision making.	Ongoing
73		Continue the development of the Matauranga Māori stocktake and development of Matauranga Māori monitoring programme to be aligned with SoE programme as necessary. Recognition of cultural memory.	HBRC – Environmental Science, policy (SIG, RMG) Mana whenua groups,	NCC HDC Biodiversity Guardians of HB	Matauranga Māori monitoring framework developed and implemented	Ongoing
74		Monitoring and recording gravel deposition within the bed of the Karamū	Mana whenua groups	HBRC	Provide an annual report to HBRC	Ongoing
75		Undertake further research and investigation into connectivity between groundwater and surface water abstraction on flows in the Paritua/Karewarewa Streams and their tributaries. This is to implement Policy 55 in Draft PC9 (v7), including investigation of feasible options for stream flow remediation	HBRC – Environmental Science Mana whenua groups	HBRC – Environmental Information, Consents, Communications, Catchment Mgmt. Land owners Permit holders DOC Forest & Bird	Better understanding about connection between groundwater and Paritua/Karewarewa Streams and identification of feasible remediation options	Within 18 months of notification of the plan.