(Version 3 – 12 June 2018)

TANK – DRAFT IMPLEMENTATION PLAN

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	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 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	Development of catchment maps Identify where farm plans applicable	By end of 2019
2	Templates for operating and managing the catchment collectives to be developed	HBRC – Policy and Land Management	Hort NZ Farmer reference groups Industry Groups Service providers	Templates available	Mid 2019
3	Catchment collective plans developed and approved	Catchment collectives HBRC – Catchment Management	Industry Groups Independent Facilitators	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 1 requirements, identify where gaps exist and develop additional programme requirements where necessary.	Industry Groups; • Hort NZ GAP, • SWGNZ • Fonterra Sustainable Dairying etc.	HBRC – Policy, Catchment Management	Comprehensive industry programme	End of 2019
5	Identify properties already subject to industry programmes	Industry groups	HBRC – Catchment Management	Properties subject to industry programmes identified	End of 2019
6	Catchment collective and Industry Group reporting and recording of information, including: Information management systems in place Multi-party access provided Monitoring programmes	HBRC – Principal Advisor Policy Implementation; FEMP Project Coordinator	NCC, HDC Catchment collectives Service providers Industry Groups	Information management system in place Information being recorded	End 2019
7	Annual meetings 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.	HBRC – Implementation Team, Policy, Science, Catchment Management	Signatories to this Plan	Annual meetings of implementation partners	Annually
8	Continue to hold and develop a list of 'Approved Providers' for nutrient budgets and FEP's include information about service providers capable of delivering but not limited to: • Independent Facilitation • Catchment plan development • Information recording and reporting • Auditing	HBRC – Catchment Management, FEMP Project Coordinator, Principal Advisor Policy Implementation	Industry Groups	List produced and updated annually	Within 18 months of notification of the Plan Change

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Action 2: REDUCE SEDIMENTATION & MANAGE EROSION RISK

	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
9	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. Note: Identification of high erosion risk is part of schedule 3	HBRC – Catchment Management	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	Landowner assistance programmes continued 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).	HBRC – Catchment Management, Biodiversity		Plant material available each year Annual Plan funding Readily available information about mitigation measures	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

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Action 3.	REDUCE NUTRIENT	CONTAMINATION OF FRESHWATER
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	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
13	Preparation of nutrient management plans by high N loss risk land uses, utilising tools such as Overseer, SPASMO, and APSIM. Schedule 3 will identify what these activities are likely to be. Note: Information about where N and P is a problem is part of Schedule 3	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 practices, processes and mitigation measures, especially in relation to high risk activities e.g. use of tile drains	HBRC – Catchment Management Catchment collectives Industry Groups		Development of mitigation measures	As above
15	Ensure best practice information 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	Identify land owners who are likely to have annual N losses greater than 20kg/ha/y in target catchments and ensure preparation of nutrient budget	Industry groups	HBRC – Catchment Management		Commence 2019 – on- going
17	Information gathering and data management of nutrient loss (specifically which N and P)?	HBRC – Land Science, Environmental Science	Industry Groups Consents Compliance		Commence 2019 – on going

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Action 4: RIPARIAN MANAGEMENT & STOCK EXCLUSION

	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
18	Stock (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.	Beef and Lamb Federated Farmers Catchment collectives	HBRC Compliance All Stock-owners adjoining river	Length of waterway with stock exclusion	2023
19	Funding available for riparian planting as part of stock exclusion (promoted as part of managing weed growth and providing biodiversity and water quality values)	HBRC – Strategic Planning Team Biodiversity?	Industry Groups Catchment Collectives	Funding identified in annual plan	Ongoing
20	Information on riparian planting solutions produced – especially for Karamu/Plains in relation to drainage and flooding objectives	HBRC –Land Science, Water Quality/Ecology Steve/Ant- Open Spaces Catchment Management	Biodiversity Guardians DOC Fish & Game	Good planting information available	Mid 2019
21	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.	HBRC – Strategic Planning Team Biodiversity Land science, Water Quality/Ecology	Industry Groups Catchment collectives	Funding identified in annual plan	Ongoing
22	Riparian margins assessed and planted for riparian planting and shade in Karamu/Plains	All Industry Groups (esp. Hort groups for Pipfruit, vegetables, kiwifruit) HBRC – Catchment Management	Catchment collectives	Length of water way assessed, fenced and/or planted	All properties in priority 1 catchments by 2023 Priority 2 by 2026 Priority 3 by 2019
23	Continue with Te Karamu Strategy and extend to all public land next to rivers	HBRC – Open Spaces, Asset Management Biodiversity Guardians	DOC , Fish & Game Mana whenua	Riparian margin register to be developed to identify land suitable for planting	To be compiled within 18 months of notification
24	Promote and provide information about appropriate riparian planting 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, NCC, HDC	Landowners Schools Fish & Game National Wetland Trust	Measure success (short term) by increase in number of waterways planted (metres). Acknowledge 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
25	Undertake riparian planting with mana whenua/hapu/marae other community groups and schools	lwi/hapu/marae/community groups/schools	HBRC – Open Spaces, Catchment Management, EnviroSchools DOC, Fish & Game	Number of planting events per year, number of trees/plants planted	Ongoing – reporting annually
26	Continue Macrophyte growth control in in lowland rivers (weed boat cutting and removal) until other management outcomes take effect (e.g. shading)	HBRC – Environmental Science, Asset Management		Weed boat events per year	Ongoing

Acti	Action 5: IMPROVE WETLAND & LAKE MANAGEMENT					
	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	
27	Continue to develop inventory of wetlands and prioritise in terms of their biodiversity value	HBRC – Land Science, Water Quality/Ecology DOC Biodiversity Guardians of Hawkes Bay Inc.	Forest & Bird Fish and Game	Information about location and state of existing wetlands	2019	
28	Identify areas where new wetlands can be created (Feedback via Nathan Burkepile (DOC)/Keiko still to come on how to identify these)	HBRC – Land Science, Water Quality/Ecology, Catchment Management DOC Fish & Game Biodiversity Guardians	Industry Groups Landowners	200ha new wetland area created	Within 10 years from notification	
29	Funding available for wetland protection and improvements	HBRC – who does the request go to? Who processes this?	DOC Central Government Fish & Game Biodiversity Guardians/Trust	Funding available in annual plan	On-going	
30	Provide information about new wetland development and sustainable wetland management how to manage wetlands to improve cultural, ecological, recreational, food gathering opportunities and outcomes	Biodiversity Guardians of Hawkes Bay Inc.	HBRC – Land Science, Catchment Management, Water Quality/Ecology DOC, Fish & Game Mana whenua National Wetland Trust?	Development and dissemination of education material, workshops, social media, communications	Ongoing	
31	Promote wetlands as a tool for landowners to improve nutrient and sediment management	Industry Groups Landowner collectives Federated Farmers	HBRC – Catchment Management, Communications DOC, Fish & Game Mana whenua	Increase number/size of wetlands on private land	Ongoing	
32	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			
33	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		Ongoing	

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Action 6: REDUCE THE IMPACT OF STORMWATER/WASTEWATER DISCHARGES

	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
36	Develop a programme for the creation and implementation of site management plans for 'high risk' activities in urban stormwater areas. Create a Site Management Plan template to assist in assessing risk consistently between TLA's. Set-up monitoring and audit regime in collaboration with TLAs.	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.
37	Undertake an urban stormwater network stocktake and establish timetable for developing integrated stormwater management plans including through resource consent processes to include: • Information gathering, • Preparation of catchment management strategies • Ranking of catchments in priority order • Implementation • Monitoring Encourage MERI – Monitoring, Evaluation, Reporting and Improvement.	HBRC – Asset Management, Consents/ Compliance, NCC and HDC		Programme of work for each council Links to LTP and annual plan funding	Programme within 18 months of notification of Plan Change
38	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.	NCC, HDC, HBRC – Communications, Policy, Asset Management, Catchment Management	HBLASS? DOC MfE Statutory Agency Group – Biodiversity Action Plan	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.
39	Carry out review of bylaws and engineering standards for stormwater network design and control of stormwater inputs to ensure consistency and alignment between councils.	HBRC – Consents, Asset Management, Policy, NCC, HDC		Bylaws and engineering standards are consistent and aligned	2023

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40	Encourage and promote wetland 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
41	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 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
42	Understand the capacity and flows in sewerage 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
43	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 (also see item 44)	JWG Drinking Water - NCC, HDC, DHB, HBRC – Policy, Science, Catchment Management		Existing Joint Management Group for drinking water continues to operate	Ongoing

	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
44	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
45	Continue to develop innovative, flexible and efficient water management systems that maximise water efficiency and water use	HBRC – Environmental Science Industry Groups Water users and irrigators		Alternative water management frameworks developed Water use data analysis	Ongoing
46	The development of web-based information management systems to support flexible water management	HBRC – IT, Environmental Science	Permit holders INZ Industry groups		
47	Design operation and management options for stream flow enhancement	HBRC	Permit holders in affected streams	Scheme designed and constructed	List of streams and dates still required
48	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	Funding in annual plans for efficiency programmes Water use data analysis	On going
49	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 Water use data analysis	
50	Establish a joint planning approach to management of risks to unreticulated 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)	Joint management group established by end 2019	Ongoing

	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
51	Continue to work with land owners and mana whenua through annual asset management plans to improve fish spawning of both indigenous species and trout in areas identified as appropriate spawning sites.	Mana whenua Landowners HBRC	Fish & Game NCC HDC DOC	Increased fish spawning habitat	Ongoing
52	Work with all the custodian of lands to enhance indigenous vegetation by protecting existing and new planting.	HBRC – Land science, Biodiversity Guardians	DOC Mana Whenua	Indigenous vegetation cover and increased ecological integrity of streams Sediment load in streams	Ongoing
53	Increase connectivity or waterbodies and terrestrial ecosystems.	HBRC – Land science, Biodiversity Guardians	DOC Mana Whenua	Species dispersal and health (e.g. migratory fish, birds, plants).	Ongoing



	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME
54	Communicate progress made toward meeting TANK Plan objectives	HBRC Communications		Fast facts progress	Ongoing
55	Continue with development of Matauranga Māori stocktake and development of Matauranga Māori monitoring programme to be aligned with SoE programme as necessary.	HBRC – Environmental Science, policy (SIG, RMG) Mana whenua, Biodiversity Guardians of HB Inc. Soc.	NCC HDC	Matauranga Māori monitoring framework developed and implemented	Ongoing
56	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 Mana whenua	Number of people in attendance & number of events	Ongoing
57	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	Number of waterways 'named'	Ongoing
58	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		Number of events each year	Ongoing
59	Continue to hold and develop list of 'Approved Providers' for nutrient budgets and FMP's include information about service providers capable of delivering services such as Independent Facilitation Catchment plan development Information recording and reporting	HBRC – FEMP Project Coordinator, Catchment Management	Industry Groups	List produced and updated annually	Within 18 months of notification of the Plan Change

	TASK DESCRIPTION	LEAD AGENCIES	PARTNERS	MEASURED BY	TIMEFRAME
)	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 NCC Mana whenua/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
	 Undertake further research and investigation into: 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	Improved understanding about sources and pathways Improved understanding about mitigation measures	Ongoing
	Develop mitigations or land management responses to address nutrient loss risks in tile drained land	HBRC – Land Mgmt, Land Science, Water Quality/Ecology Industry groups/land owners (Heretaunga plains)	Catchment collectives	Development of management and mitigation measures	Commencing 2025
	Increase monitoring of different metrics that better capture overall Ecosystem Health	HBRC – Water Quality/Ecology	Mana whenua, NIWA	Annual reporting SOE monitoring	Ongoing
	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) • Citizen science/local scale monitoring • Schools/education programmes • Kaitiakitanga/Matauranga Māori • On-Farm monitoring • Higher level independent monitoring (similar to SOE) Develop templates for higher level monitoring, and provide support for all other levels of monitoring. Seek funding where available from central government.	HBRC –, Land Science, Environmental Science	HBRC, Beef + Lamb, Mana whenua Federated Farmers NIWA	Water quality data is collected by catchment collectives, marae/hapu and community groups	Ongoing
5	Establish information management systems to collate and report on data collected by community groups and collectives	HBRC	NIWA LAWA	Information gathered is valued and used	ongoing