

	A	B	C	D	E	F	G	H			
1	<b>Budget 2023 - Existing Bid Template</b>						<b>Hawke's Bay Regional Recovery Agency April 2023</b>				
2	Please fill in this template for the Budget 2023 bids that your agency has submitted that relate to recovery activities arising from Cyclone Gabrielle. Please only include bids for initiatives that seek funding in 2023/24, and identify any outyear funding where known. Please only include bids for initiatives that directly relate to recovering from Cyclone Gabrielle.										
3		<b>Initiative name and Lead Agency</b>	<b>Funding sought through Budget 2023 for this initiative</b>	<b>Other funding sources for this initiative (e.g. response claims, existing funds)</b>	<b>Total cost of this</b>	<b>Description - what this initiative delivers and when (describe its outputs, outcomes and timeline)</b>	<b>Any contingency amount(s)</b>				
4	<b>#</b>				(funding sought via Budget 23)						
5	1	Environmental Resilience - Flood Protection Repair damaged stopbanks to existing standards (Heretaunga Plains & Upper Tukituki) and repairs to Drains & Culverts, Tree Plantings, Akmon Groins as a result of Cyclone Gabrielle. This is to restore back to what we had pre cyclone.	[\$m Amount - 2023/24] \$ 93.70	[\$m Amount - 2023/24] \$ 77.00	\$ 16.70	[Max. 100 - 200 words] Output: Provide safe level of protection (1:100year) stop banks. Repairing existing stopbanks to level of standard pre-Cyclone.	\$ 1.67				
6											
7		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency			
8								\$m			
9											
10											
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14											
15											
16		2	Environmental Resilience - Flood Protection Heretaunga Plains Flood Control Scheme	[\$m Amount - 2023/24] \$ 80.00		[\$m Amount - 2023/24] \$ -	240	[Max. 100 - 200 words] Output: Provide safe high level of protection (1:500year) stop banks. 112,500m of stopbanks at \$2,105 per metre which includes enhanced design to deal with overdesign events in a planned way.	\$ 24.00		
17											
18			HBRC	[\$m Amount - outyears (if known)]		[\$m Amount - outyears (if known)]				10% contingency	
19										\$m	
20											
21											
22											
23											
24											
25											
26											
27	3	Environmental Resilience - Flood Protection Upper Tuki Tuki Scheme	[\$m Amount - 2023/24] \$ 60.00	[\$m Amount - 2023/24] \$ -	110	[Max. 100 - 200 words] Output: Build back better stopbanks 76,500m. Excludes costs for any significant land purchase.	\$ 11.00				
28											
29		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency			
30								\$m			
31											
32											
33											
34											
35											
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38	4	Environmental Resilience - Flood Protection Wairoa (NEW Scheme)  HBRC	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	60	[Max. 100 - 200 words] Output: A proposal was made post-Cyclone Bola to introduce a Flood Protection Scheme, however, due to the inability of ratepayers to fund this at that time, this was not progressed.  Outcomes: To add in a NEW Flood Protection Scheme for the Town of Wairoa  Timelines: 2-3years	\$ 6.00  10% contingency \$m	
39			\$ 20.00	\$ -				
40			[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				
41			\$ 40.00	\$ -				
42			2024/25	[Source(s)]				
43			\$ 20.00					
44			2025/26					
45			\$ 20.00					
46								
47								
48								
49	5	Environmental Resilience - Waste Silt, Wood & Mixed Waste Debris Programme  HBRC	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	120	[Max. 100 - 200 words] Output: Removal of Cyclone created environmental waste to allow communities to rebuild. Including: (a) Burning in situ (b) Separation of waste, burning non-toxic material, recovering or landfilling the remainder (c) Landfill (d) Stockpiling and decomposition (e) Shredding (f) Chipping We are aware of many sites and the quantities involved. For example, Pakowai has 1.5million cubic metres silt, requests from community to remove silt has reached 700 m3. We are still to receive information from Industry (T&G and Apple and Pears etc). This could be at least 1million m3. We are also aware that in Esk, feedback to date has suggested that this amount of silt is equivalent to 1/5th of work that was required for transmission gully. This is very difficult to quantify  Outcomes: Removal of ~3million m3 of silt, wood and mixed waste to enable communities to rebuild.  Timelines: 12-24months	\$ 12.00  10% contingency \$m	
50			\$ 60.00	\$ -				
51			[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				
52			\$ 60.00	\$ -				
53			2024/25	[Source(s)]				
54			\$ 60.00					
55								
56								
57								
58								
59								
60	6	Environmental Resilience - Flood Protection Replace and Improve Drainage Pumpstations  [Lead Agency Name]	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	40	[Max. 100 - 200 words] Output: Replace and improve 3 drainage pump stations at Awatoto (Mission), Brookfields and Pakowhai Pump Stations. This includes undertaking review and consultation costs, consenting and seismic costs too.  Outcomes: More resilient Flood protection assets across the Heretaunga Plains Flood Protection scheme.  Timelines: 12-18months	\$ 4.00  10% contingency \$m	
61			\$ 20.00	\$ 3.50				
62			[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				
63			\$ 16.50	\$ -				
64			2024/25	NEMA				
65			\$ 16.50	\$ -				
66				Insurance - 2023/24				
67				\$ 3.50				
68								
69								
70								
71		Environmental Resilience - Flood	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]		[Max. 100 - 200 words]		

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72	7	Protection Support for private land owners with river damage, edge protection, stabilisation of river course	\$ 50.00	\$ -	55	Output: There is significant erosion and river damage to out of scheme areas where landowners are looking to the Regional Council for support.  Outcomes: Stabilisation of these areas will minimise sediment discharge and provide certainty of river alignment to communities.  Timelines: 12months	\$ 5.50	
73		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			[Reason]	
74			\$ -	\$ -				
75			[Appropriation(s)]	[Source(s)]				
76								
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81								
82	8	Environmental Resilience - Emergency Planning Resilience Community Wellbeing - Welfare/Cultural impacts	[\$m Amount - 2023/24] \$ 6.00	[\$m Amount - 2023/24] \$ 5.00	10.5	[Max. 100 - 200 words] Output: Civil Defence response has incurred >\$10m to date.  Current legislation for Section 33 of Guide to National CDEM Plan 2015 does not allow for reimbursement of all costs incurred during our response. It is limited and enforced to the guidelines only in Section 33. Therefore there is a shortfall that will be unfairly borne by the ratepayer if not funded  Outcomes: Removal of unfair burden to the Hawke's Bay ratepayer for costs incurred during this disaster response  Timelines: 6mths	\$ 1.05	
83		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency \$m	
84			\$ -	\$ -				
85			[Appropriation(s)]	NEMA				
86				\$ 5.00				
87								
88								
89								
90								
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92								
93	9	Environmental Resilience - Tangata Whenua Community Engagement	[\$m Amount - 2023/24] \$ 1.00	[\$m Amount - 2023/24]	1	[Max. 100 - 200 words] Output: Required regional resilience planning to ensure appropriate and effective engagement with Tangata Whenua related to environmental resilience specifically.  Outcomes: Regional plan including Tangata Whenua  Timelines: 24 months	\$ 0.10	
94		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency \$m	
95			\$ -	\$ -				
96			[Appropriation(s)]	NEMA				
97								
98								
99								
100								
101								
102								
103								
104	10	Environmental Resilience - Communications and Marketing - Recovery work	[\$m Amount - 2023/24] \$ 0.40	[\$m Amount - 2023/24]	0.4	[Max. 100 - 200 words] Output: Support for all recovery work across HBRC ensuring consistency of messages, engagement plans and media is all managed succinctly and professionally for overall effectiveness  Outcomes: Efficient and Effective community engagement  Timelines: 24 months	\$ 0.04	
105		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency \$m	
106			\$ -	\$ -				
107			[Appropriation(s)]					
108								
109								
110								
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112								
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114								
115	Primary Sector - Landuse Recovery		[\$m Amount - 2023/24]	[\$m Amount - 2023/24]		[Max. 100 - 200 words]		

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116	11	Engaged Rural Communities	\$ 0.72	\$ -	0.72	Output: Support the establishment and operational activities of Rural Community Hubs and Catchment Collectives. •Appropriate funds to support effective Rural Hubs and ensure their longevity past the immediate reposne phase •Delivery of activities and events identified by the community to support recovery  MPI/HBRC  Outcomes:   Timelines: 4 months	\$ 0.07			
117		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]					10% contingency \$m	
118			\$ -	\$ -						
119			[Appropriation(s)]	[Source(s)]						
120										
121										
122										
123										
124										
125										
126	12	Primary Sector - Landuse Recovery Sediment & Erosion Control	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	3.85	[Max. 100 - 200 words] Output: Build a network of stock (trees) supply to meet the needs of rural/hill country farming enterprises - extend nursery operations to Wairoa and CHB to meet local demand •Growth in supply of poplar poles for use in hill country erosion control •Land 4 Life programme •Farm planning tools  Outcomes:   Timelines: 12 months	\$ 0.39			
127			\$ 3.85	\$ -					10% contingency \$m	
128		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]						
129			\$ -	\$ -						
130			[Appropriation(s)]	[Source(s)]						
131										
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136										
137	13	Primary Sector - Land Use Recovery - Agriculture	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	0.275	[Max. 100 - 200 words] Output: Provide resourcing, leadership, skill, and experience to support HBRC rural recovery initiatives  •Strategic Planning •Networking and sector partnerships •Farm & growing system awareness and knowledge •Policy & regulatory development and implementation  HBRC contribution - no funding required  Outcomes: Dedicated team for the development and implementation of a rural recovery plan across Hawke's Bay.  Timelines: 1 month	\$ 0.03			
138		HBRC Rural Recovery Team Establishment	\$ -	\$ 0.28					10% contingency \$m	
139		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]						
140			\$ -	\$ -						
141			[Appropriation(s)]	[Source(s)]						
142				HBRC						
143				\$ 0.28						
144										
145										
146										
147										
148	14	Primary Sector - Land Use Recovery - Agriculture	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	0.385	[Max. 100 - 200 words] Output: Provide a recovery framework to support investment and allocation of resources to support recovery, and applied as the implementation model for recovery •Undertake an Impact Assessment Survey •Aligning rural intelligence and insights resources to guide recovery actions •Development of an HBRC implementation plan to align internal resources, capabilities, information, skills to deliver a joined up solution •Aligned to organisational strategic priorities and objectives HBRC contribution - no funding required  Outcomes: Framework to support the investment and allocation of resources for a Rural Recovery Plan across Hawkje's Bay	\$ 0.04			
149		HBRC Rural Recovery Strategy Development	\$ -	\$ 0.39					10% contingency \$m	
150		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]						
151			\$ -	\$ -						
152			[Appropriation(s)]	[Source(s)]						
153				HBRC						
154			\$ 0.39							
155										

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156									
157						Timelines: 12 months			
158									
159	15	Primary Sector - Land Use Recovery - Agriculture Building resilient rural businesses	[\$m Amount - 2023/24] \$ 3.30	[\$m Amount - 2023/24] \$ -	16.5	[Max. 100 - 200 words] Output: Develop information, planning and knowledge transfer models that support resilient rural land based businesses •Workshops & extension events that support farmer/grower learning and practice change •Development of a digitally based farm planning tool, initiated and managed by farmers/growers that support robust farm planning systems (leads to FW-FP and IFP over time) •Change management MPI/MfE/HBRC	\$ 1.65		
160		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency	
161			\$ -	\$ -				\$m	
162			[Appropriation(s)]	[Source(s)]					
163			2024/25						
164			\$ 3.30						
165			2025/26						
166			\$ 3.30						
167			2026/27 & 2027/28						
168			\$ 6.60						
169						Timelines: 5 years			
170	16	Primary Sector - Land Use -Agriculture Water Quality for Primary Sector	[\$m Amount - 2023/24] \$ 1.65	[\$m Amount - 2023/24] \$ -	2.75	[Max. 100 - 200 words] Output: Identification of new/alternative tools for farmers/growers to manage and improve water quality •Grazing zones •Exclusion tools to support integrated grazing systems	\$ 0.28		
171		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency	
172			\$ -	\$ -				\$m	
173			[Appropriation(s)]	[Source(s)]					
174			2024/25						
175			\$ 1.10						
176									
177									
178									
179								Timelines: 24 months	
180									
181	17	Primary Sector - Land Use - Agriculture Biodiversity, Pest & Predator Control	[\$m Amount - 2023/24] \$ 8.25	[\$m Amount - 2023/24] \$ -	8.25	[Max. 100 - 200 words] Output: Identification of information systems, tools and eradication programmes that supports the growth in vibrant rural communities •Ground truth existing eco-prioritisation sites and understand scale of degradation because of cyclone Gabrielle to support the design of a more robust recovery model •Undertake an impact assessment of previous biodiversity, pest & predator control to understand effectiveness and better design recovery tools	\$ 0.83		
182		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency	
183			\$ -	\$ -				\$m	
184			[Appropriation(s)]	[Source(s)]					
185									
186									
187									
188									
189									
190								Timelines: 12 months	
191									
192	19	Environmental Resilience - Resource Management and LandUse LiDAR Capture	[\$m Amount - 2023/24] \$ 2.42	[\$m Amount - 2023/24] \$ -		[Max. 100 - 200 words] Output: LIDAR Capture: Cyclone Gabrielle has had an everlasting impact on the physical environment of Hawke's Bay. In order to quantify the impact at regional, catchment, sub-catchment and property scales, and inform recovery and future environmental management approaches, it is critical that we have the necessary data to measure and quantify the impact of the cyclone on the Hawke's Bay landscape.	\$ 0.24		
193		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency	
194									

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195	18		\$ -	\$ -	2.42	<p>The impact zone of Cyclone Gabrielle extends, with overland flow and landside induced soil loss associated with a loss of nutrients, productivity and natural landscape. The value of LiDAR comes from its application in making very accurate and fine scale measures of the shape of the ground, and Hawke's Bay is in the unique position that LiDAR was flown in 2020 making an extremely valuable dataset for pre- and post-natural disaster. Collection of region wide LiDAR imagery to determine digital elevation differences.</p> <p>Outcomes: This will contribute to flood hazard mapping, river capacity changes, erosion control management and effectiveness monitoring.</p> <p>Timelines: 6-12months</p>		
196			[Appropriation(s)]	[Source(s)]				
197								
198								
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200								
201								
202								
203	19	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Impacts on air quality	[\$m Amount - 2023/24] \$ -	[\$m Amount - 2023/24] \$ 0.15	0.15	<p>[Max. 100 - 200 words] Output: Air quality monitoring and source apportionment. Including 0.3 FTE internal time HBRC</p> <p>Outcomes: Understanding the impacts on air quality following the Cyclone</p> <p>Timelines:</p>	\$ 0.02	
204		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				
205			[Appropriation(s)]	[Source(s)]				
206				MBIE				
207				\$ 0.15				
208								
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214	20	Environmental Resilience - Climate Change Flood Frequency Analysis	[\$m Amount - 2023/24] \$ 0.44	[\$m Amount - 2023/24] \$ -	0.44	<p>[Max. 100 - 200 words] Output: Flood frequency analysis - Cyclone Gabrielle delivered a deluge over the Hawke's Bay region. Rainfall stations recorded in excess of 500mm over the course of the event, which increased the rivers to record levels resulting in widespread flooding. The river levels, rainfall and subsequent flooding exceeded records in many regions catchments and extended beyond the boundaries of current flood models.</p> <p>Outcomes: Flood analysis and modelling is required in order to understand the magnitude of the current event, and to provide guidance on flood warning systems going forward. This will provide integral information on the recurrence interval of hydrological extremes in the Hawke's Bay region</p> <p>Timelines: 3-5 months</p>	\$ 0.04	
215		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				
216			[Appropriation(s)]	[Source(s)]				
217								
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224								
225	21	Environmental Resilience - Flood Protection Image velocimetry	[\$m Amount - 2023/24] \$ 0.33	[\$m Amount - 2023/24] \$ -	0.33	<p>[Max. 100 - 200 words] Output: New equipment (fixed cameras for image velocimetry) to enable remote assessment of river flows at 10 sites.</p> <p>Outcomes: This will provide integral information on the monitoring and assessment of these river flows</p> <p>Timelines: 6-12months</p>	\$ 0.03	
226		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				
227			[Appropriation(s)]	[Source(s)]				
228								
229								
230								
231								
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235								
236		Environmental Resilience - Resource	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]		[Max. 100 - 200 words]		

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237	22	Management and Land Use High Resolution/High Quality Satellite acquisition	\$ 0.64	\$ -	0.64	<p>Output: <b>High resolution/high quality satellite acquisition</b> - In order to apply rigorous scientific (remote sensing) processes and assessments it is necessary that the satellites sensor systems (lens systems, light wavelength filters, light sensing devices, geometric control systems) are calibrated and stable. The airbus Pleiades and maxar satellites fall in this class of instrument. A regional coverage collection of this class of satellite is estimated to cost in the order of \$500k. HBRC have experience in the utilisation of Pleiades data collected post the Northern Hawke's Bay weather event 2022 and are currently working with MWLR on building our knowledge of the impacted of landslides and soil lose on those catchments.</p> <p>Outcomes: To aid the quantification of the impact of Cyclone Gabrielle over the full region we recommend the tasking of a new high quality and resolution (0.5m or finer) satellite dataset.</p> <p>Timelines: Feasibilities studies suggest that (with the persistent cloud cover that we are experiencing) that a collection of this quality would take in the order of 2-4 months to complete.</p>	\$ 0.06	
238		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency	
239			\$ -	\$ -			\$m	
240			[Appropriation(s)]	[Source(s)]				
241								
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247	23	Environmental Resilience - Resource Management and Land Use Effectiveness of existing erosion control work	[\$m Amount - 2023/24] \$ 0.17	[\$m Amount - 2023/24] \$ -	0.165	<p>[Max. 100 - 200 words]</p> <p>Output: <b>Effectiveness of existing erosion control work</b> on landslide mitigation during Cyclone Gabrielle. This workstream includes contracting Manaaki Whenua Landcare Research to undertake an assessment of difference in susceptibility for areas where erosion control has been implemented to calculate the number of landslides that were prevented by this work, and which mitigations appeared to be the most effective. 0.1 FTE internal time HBRC (HBRC contribution)</p> <p>Outcomes: Erosion control assessment of most effective control measures during the Cyclone event</p> <p>Timelines: 12 months</p>	\$ 0.02	
248								
249		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency	
250			\$ -	\$ -			\$m	
251			[Appropriation(s)]	[Source(s)]				
252								
253								
254								
255								
256								
257								
258	24	Environmental Resilience - Resource Management and Land Use Quantification of land damage	[\$m Amount - 2023/24] \$ 0.11	[\$m Amount - 2023/24] \$ -	0.11	<p>[Max. 100 - 200 words]</p> <p>Output: <b>Quantification of land damage</b> and assessment of area if land that could be redeemed using erosion control. Impact on highly productive soils 0.4 FTE internal time HBRC (HBRC contribution)</p> <p>Reliant on land damage assessment in priority areas from GNS funded via MBIE.</p> <p>Outcomes: Identifying areas that could be redeemed using erosion control measures and understanding the impact on highly productive soils.</p> <p>Timelines: 12 months</p>	\$ 0.01	
259								
260		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency	
261			\$ -	\$ -			\$m	
262			[Appropriation(s)]	[Source(s)]				
263								
264								
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266								
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269	25	Environmental Resilience - Climate Change Greenhouse gas inventory	[\$m Amount - 2023/24] \$ 0.02	[\$m Amount - 2023/24] \$ -	0.022	<p>[Max. 100 - 200 words]</p> <p>Output: <b>Greenhouse gas inventory</b> – advice and peer review.</p> <p>0.5 FTE internal time HBRC- (HBRC contribution) \$20k per annum</p> <p>Outcomes: Preparedness for future events</p>	\$ 0.00	
270								
271		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]			10% contingency	
272			\$ -	\$ -			\$m	
273			[Appropriation(s)]	[Source(s)]				
274								
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278						Timelines: 12 months				
279										
280	26	Environmental Resilience - Climate Change Natural attenuation potential	[\$m Amount - 2023/24] \$ 0.10	[\$m Amount - 2023/24] \$ -	0.1	[Max. 100 - 200 words] Output: <b>Natural attenuation potential</b> Calculation of wetland potential to dampen high flows and hold water during periods of drought.	\$ 0.01			
281										
282		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]					External consultant to do this modelling	10% contingency
283			\$ -	\$ -						\$m
284			[Appropriation(s)]	[Source(s)]						
285									Outcomes: Assessment of flow statistics with natural attenuation systems. Reducing peak flows in the upper catchment	
286										
287										
288										
289									Timelines: 12 months	
290										
291	27	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation <b>Cyclone impact assessment on natural environment</b>	[\$m Amount - 2023/24] \$ 2.03	[\$m Amount - 2023/24] \$ -	\$ 2.45	[Max. 100 - 200 words] Output: <b>Cyclone impact assessment on natural environment</b>  see below  2.4 FTE Technician time required (HBRC contribution) 0.1 FTE HBRC internal time	\$ 0.25			
292										
293		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]						10% contingency
294			\$ -	\$ -						\$m
295			Appropriation(s) to each area (Col F)	[Source(s)]						
296			1.2276						<b>Freshwater</b> Monthly MCI samples at 104 freshwater sites to determine the effect of Cyclone Gabrielle on freshwater systems and inform ecosystem recovery timeframes. Bi-monthly the following year. (\$356k Y1   \$178k Y2) Lowland stream sediment quality monitoring (\$30k) Habitat mapping of severely impacted sites (\$10k) Sediment deposition monitoring within the river network (\$30k) Targeted study on the Waitangi Stream area due to ingress from highly contaminated Awatoto site (\$100k) Whitebait habitat restoration of impacted sites (\$50k per annum for 2 years) eDNA at state of the environment sites (\$156k per annum for 2 years)	
297			0.3025						<b>Lakes</b> Deep coring of offshore lake sediments to assess the impact of Cyclone Gabrielle compared to historic flood sediment layers to inform ecosystem recovery timeframes. (\$200k) LakeSPI reassessment (\$75k)	
298			0.535						<b>Marine and Coast</b> Additional twice-monthly estuarine monitoring and assessments to determine the effect of Cyclone Gabrielle on estuarine systems and inform ecosystem recovery timeframes. (\$385k) Update the Hawkes Bay Marine Degradation and Recovery model to include Cyclone Gabrielle to assess temporal timeframes for recovery and associated mitigation requirements (\$50k) Deep coring of offshore marine sediments to assess the impact of Cyclone Gabrielle compared to historic flood sediment layers to inform ecosystem recovery timeframes. (\$100k)	



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299						<b>Terrestrial ecosystems</b> Assessment of areas of riparian damage using HBRC riparian programme (\$10k) Historic wetland mapping coupled with inundation areas to inform areas for reversion (\$100k) Biodiversity loss/damage - Stratified monitoring of Priority Ecosystem sites to assess damage from Cyclone Gabrielle (\$100k) River and coastal bird surveys to determine Cyclone impacts Assessment of vegetation re-establishment in wetlands in affected areas. (\$90k)			
300			0.3						
301			2024/25				Outcomes: Understanding what impacts the cyclone has had on our state of the environment - 4-7 year recovery period. To assist with tracking our projectory to recovery.		
302			\$ 0.42						
303							Timelines: 3 months intensive, 2 years 3mths total.		
304									
305									
306		Environmental Resilience - Water Security & Health Changes in groundwater recharge dynamics	[\$m Amount - 2023/24] \$ 0.09	[\$m Amount - 2023/24] \$ -		[Max. 100 - 200 words] Output: <b>Changes in groundwater recharge dynamics</b> (gains and losses) due to changes from silt/erosion caused by changes in bathymetry from Cyclone Gabrielle. Needs concurrent gauging's and consultant support	\$ 0.02		
307	28	HBRC	[\$m Amount - outyears (if known)] \$ 0.09	[\$m Amount - outyears (if known)] \$ -	0.176	1 FTE Technician time required	10% contingency \$m		
308			[Appropriation(s)]	[Source(s)]					
309			2024/25						
310			\$ 0.09						
311									
312									
313									
314									
315									
316									
317		Environmental Resilience - Water Security & Health Assessment of spring feed flows	[\$m Amount - 2023/24] \$ 0.06	[\$m Amount - 2023/24] \$ -		[Max. 100 - 200 words] Output: <b>Assessment of spring feed flows</b> – impacts from Cyclone Gabrielle	\$ 0.02		
318	29	HBRC	[\$m Amount - outyears (if known)] \$ 0.11	[\$m Amount - outyears (if known)] \$ -	0.165		10% contingency \$m		
319			[Appropriation(s)]	[Source(s)]					
320			2024/25						
321			\$ 0.06						
322									
323									
324									
325									
326									
327									
328		Environmental Resilience - Water Security & Health Re-assessment of low flows	[\$m Amount - 2023/24] \$ 0.11	[\$m Amount - 2023/24] \$ -		[Max. 100 - 200 words] Output: <b>Re-assessment of low flows</b> due to river morphological changes and environmental flow setting	\$ 0.03		
329	30	HBRC	[\$m Amount - outyears (if known)] \$ 0.11	[\$m Amount - outyears (if known)] \$ -	0.33		10% contingency \$m		
330			[Appropriation(s)]	[Source(s)]					
331			2024/25						
332			\$ 0.11						
333									
334									
335									
336									
337									

	A	B	C	D	E	F	G	H	
338						12months			
339	31	Environmental Resilience - Water Security & Health Groundwater Quality	[\$m Amount - 2023/24] \$ 0.11	[\$m Amount - 2023/24] \$ -	0.11	[Max. 100 - 200 words] Output: <b>Groundwater Quality</b> monitoring groundwater quality and bores  0.6 Technician time required	\$ 0.01		
340									
341		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
342									
343			[Appropriation(s)]	[Source(s)]					
344									
345									
346									
347									
348									
349						Timelines: 12 months +			
350	32	Environmental Resilience - Catchment Management & Flood Protection Erosion Control Scheme re-establishment	[\$m Amount - 2023/24] \$ 0.42	[\$m Amount - 2023/24] \$ 0.11	0.528	[Max. 100 - 200 words] Output: Re-establishing fencing and protection of previously planted schemes to re-instate to pre-cyclone standards. Complete gap analysis and develop tools and a resilient system to support the growth in the Erosion Control Scheme due to recovery	\$ 0.05		
351									
352		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
353									
354			[Appropriation(s)]	[Source(s)]					
355									
356									
357									
358									
359									
360						Timelines: 3 months to implement and run over 3 years			
361	33	Environmental Resilience - Catchment Management & Flood Protection Erosion Control Scheme - Post cyclone project audit	[\$m Amount - 2023/24] \$ 0.13	[\$m Amount - 2023/24] \$ 0.04	0.165	[Max. 100 - 200 words] Output: Review existing pole planting to ground truth impact and identify scale of remedial actions	\$ 0.02		
362									
363		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
364									
365			[Appropriation(s)]	[Source(s)]					
366									
367									
368									
369									
370									
371						Timelines: 12 months			
372	34	Environmental Resilience - Catchment Management & Flood Protection Hapara Takatu (Shovel Ready) Fencing Repairs	[\$m Amount - 2023/24] \$ 0.11	[\$m Amount - 2023/24] \$ -	0.11	[Max. 100 - 200 words] Output: MfE have offered to fully fund repair works to riparian fencing they co-funded through the SR programme	\$ 0.01		
373									
374		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
375									
376			[Appropriation(s)]	[Source(s)]					
377				MfE					
378				\$ 0.10					
379									
380									
381								Timelines:	

	A	B	C	D	E	F	G	H
382						6 - 9 months		
383	35	Environmental Resilience - Catchment Management & Flood Protection Individual SLUI Style Recovery Farm Plans which will transition to NPSFM	[\$m Amount - 2023/24] \$ 0.28	[\$m Amount - 2023/24] \$ -	0.275	[Max. 100 - 200 words] Output: Comprehensive farm planning in priority areas including full LUC/LRI assessment and agronomist input. 50,000ha per annum at \$15/ha on going over 5 years (250,000ha) Closely linked to the Primary Sector - Rural Recovery Resilience Plan	\$ 0.03	
384		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -		10% contingency \$m		
385			[Appropriation(s)]	[Source(s)]		Outcomes:		
386								
387								
388								
389								
390								
391								
392								
393							6-12 months to set up and work to continue over 5 year period	
394	36	Environmental Resilience - Catchment Management & Flood Protection Build Nursery Capability	[\$m Amount - 2023/24] \$ 1.87	[\$m Amount - 2023/24] \$ -	1.87	[Max. 100 - 200 words] Output: The Poplar and Willow pole nursery is crucial for mitigating erosion in the Hawkes Bay. The cyclone emphasized the need to repair nursery damage and prepare it to play a significant role in responding to cyclone impact and damage. The combination of damage to existing nursery stock, loss of established poplars in critical erosion zones, and the increase in demand for increased erosion protection is driving a need to amplify nursery production, distribution and establishment.	\$ 0.19	
395		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -		10% contingency \$m		
396			[Appropriation(s)]	[Source(s)]		Outcomes:		
397								
398								
399								
400								
401								
402								
403								
404							Timelines: 6-12months to set up and work to continue over 3 year period	
405	37	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Biodiversity post cyclone audit and modelling	[\$m Amount - 2023/24] \$ 1.10	[\$m Amount - 2023/24] \$ -	1.1	[Max. 100 - 200 words] Output: Ground truth existing eco-prioritisation sites and understand scale of degradation because of cyclone Gabrielle to support the design of a more robust recovery model	\$ 0.11	
406		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -		10% contingency \$m		
407			[Appropriation(s)]	[Source(s)]		Outcomes:		
408								
409								
410								
411								
412								
413								
414								
415							Timelines: 3 months to implement and run over 2 years	
416	38	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Biodiversity Protection and Enhancement programme recovery design	[\$m Amount - 2023/24] \$ 0.55	[\$m Amount - 2023/24] \$ -	0.55	[Max. 100 - 200 words] Output: Design and implement a recovery model for the Protection and Enhancement programme on a catchment scale. This would include wetland management, flood plain management, resilient ecosystems, retirement, reversion and native planting.	\$ 0.06	
417		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -		10% contingency \$m		
418			[Appropriation(s)]	[Source(s)]		Outcomes:		
419								
420								
421								
422							Building the delivery model for implementation, which includes strategic advise on wetland management, ecosystem enhancement, native planting, etc. which will be critical to post	

	A	B	C	D	E	F	G	H	
423						management, ecosystem enhancement, native planting, etc. which will be critical to post-cyclone recovery actions.			
424									
425						Timelines:			
426						3 months to implement and run over 2 years			
427	39	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Implementation of Priority Ecosystem Programme	[\$m Amount - 2023/24] \$ 0.44	[\$m Amount - 2023/24] \$ 0.66	3.3	[Max. 100 - 200 words] Output: The completion of the priority ecosystem site ground truthing and development of new recovery model that is inclusive of the impact assessment results from both the Science and Primary Sector teams will drive an acceleration in operational delivery of on-ground works through the Priority Ecosystem Programme.	\$ 0.33		
428		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
429			[Appropriation(s)]	[Source(s)]					
430			2024/25	2024/25					
431			\$ 0.44	\$ 0.66					
432			2025/26	2025/26					
433			\$ 0.44	\$ 0.66					
434									
435									
436								Timelines: 12 months +	
437									
438	40	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Implementation of Protection and Enhancement Programme	[\$m Amount - 2023/24] \$ 0.44	[\$m Amount - 2023/24] \$ 0.66	2.2	[Max. 100 - 200 words] Output: The completion of a new recovery model for the Protection and Enhancement Programme that is inclusive of the impact assessment results from both Science and Primary Sector teams will drive an acceleration in operational delivery of on-ground works through the Protection and Enhancement Programme	\$ 0.22		
439		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
440			[Appropriation(s)]	[Source(s)]					
441			2024/25	2024/25					
442			\$ 0.44	\$ 0.66					
443									
444									
445									
446									
447								Timelines: 2 years	
448									
449	41	Primary Sector - Agriculture Incentive Scheme Funding	[\$m Amount - 2023/24] \$ 0.22	[\$m Amount - 2023/24] \$ -	0.22	[Max. 100 - 200 words] Output: We subsidise 50 percent of control costs on properties for certain RPMP plants to incentivise landowners to control these plants. Owing to the effects of Cyclone Gabrielle landowners are going to be hard pressed to fund their half of these costs while still suffering the effects of having these pest plants occupying their property. This would allow these landowners to take a full financial year off while still allowing control of these pest plants on their properties.	\$ 0.02		
450		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
451			[Appropriation(s)]	[Source(s)]					
452									
453									
454									
455									
456									
457									
458								Timelines: 12 months	
459									
460	42	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Biosecurity Post Cyclone Auditing	[\$m Amount - 2023/24] \$ 0.33	[\$m Amount - 2023/24] \$ -	0.33	[Max. 100 - 200 words] Output: Full monitoring and audit of flood affected properties for Chilean Needle Grass, Woolly Nightshade, Saffron Thistle and Old Mans Beard.	\$ 0.03		
461		HBRC	[\$m Amount - outyears (if known)] \$ -	[\$m Amount - outyears (if known)] \$ -				10% contingency \$m	
462			[Appropriation(s)]	[Source(s)]					
463									
464									
465									
466								Outcomes: Understanding post cyclone the flood affected properties which have pest plants.	

	A	B	C	D	E	F	G	H	
467									
468									
469						Timelines:			
470						12 months			
471	43	Environmental Resilience - Indigenous Ecosystems, Biodiversity and Conservation Contaminated Gravel HBRC	[\$m Amount - 2023/24] \$ 0.55	[\$m Amount - 2023/24] \$ -	0.55	[Max. 100 - 200 words] Output: Funding for scientific study on Chilean needle grass seed movement and germination in river gravel run by AgResearch. These results will help in future river management and flood prevention	\$ 0.06		
472									
473			[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]				10% contingency	
474			\$ -	\$ -				\$m	
475			[Appropriation(s)]	[Source(s)]					
476									
477									
478									
479									
480						Timelines:			
481						12 months			
482	44	Environmental Resilience - Water Storage - Feasibility Study	[\$m Amount - 2023/24] \$ 2.78	[\$m Amount - 2023/24] \$ 1.30	\$ 1.48	[Max. 100 - 200 words] Output: Heretaunga Water Storage project to explore water storage solutions as key issue post Cyclone with water storage. Need more funding now given impacts of cyclone and need to rethink water storage opportunities	\$ 0.15		
483									
484			HBRC	[\$m Amount - outyears (if known)]		[\$m Amount - outyears (if known)]		10% contingency	
485				\$ -		\$ -		\$m	
486			[Appropriation(s)]	[Source(s)]					
487									
488									
489									
490									
491									
492						Timelines:			
493	44	Environmental Resilience - Climate Change	[\$m Amount - 2023/24] \$ 0.50	[\$m Amount - 2023/24] \$ -	\$ 0.50	[Max. 100 - 200 words] Output: Spatial based regional climate change vulnerabilities assessment (updated with climate change scenarios and completing data gaps) -Regional emissions reduction plan (community conversations/ citizens assembly and for implementing recovery based actions)	\$ 0.05		
494									
495			HBRC	[\$m Amount - outyears (if known)]		[\$m Amount - outyears (if known)]		10% contingency	
496				\$ -		\$ -		\$m	
497			[Appropriation(s)]	[Source(s)]					
498									
499									
500									
501									
502						Timelines:			
503						12 months +			
504	45	Resilient Infrastructure - Public Transport	[\$m Amount - 2023/24] \$ 0.50	[\$m Amount - 2023/24] \$ -	\$ 0.50	[Max. 100 - 200 words] Output: New collateral and customer service requirements to support new transport/roading routes established and rebuilt as a result of roading network changes.	\$ 0.05		
505									
506			HBRC	[\$m Amount - outyears (if known)]		[\$m Amount - outyears (if known)]		10% contingency	
507				\$ -		\$ -		\$m	
508			[Appropriation(s)]	[Source(s)]					
509									
510									
511									
512									
513						Timelines:			
514						12 months +			
515	45	Resilient Infrastructure - Transport Cycleways	[\$m Amount - 2023/24] \$ 0.30	[\$m Amount - 2023/24] \$ -		[Max. 100 - 200 words] Output: Short term immediate repairs to open sections of the HB Trails network caused as a result of Cyclone Gabrielle	\$ 0.03		
516									
517			HBRC	[\$m Amount - outyears (if known)]		[\$m Amount - outyears (if known)]		10% contingency	

	A	B	C	D	E	F	G	H
518	46		\$ -	\$ -	\$ 0.30	<i>Cyclical Actions:</i> i.e. grading of debris or replacement of scoured sections, signage repairs.	\$m	
519			[Appropriation(s)]	[Source(s)]		Outcomes:		
520								
521								
522								
523								
524								
525					Timelines: 12 months +			
526	47	ALL POU - HBRC Corporate Support	[\$m Amount - 2023/24]	[\$m Amount - 2023/24]	\$ 5.00	[Max. 100 - 200 words]	\$ 0.50	
527			\$ 5.00			Output: Corporate support such as HR (hiring X2), procurement (contract management x2), Finance /management accountants (2), IT Solutions required (3), CX (3)		
528		HBRC	[\$m Amount - outyears (if known)]	[\$m Amount - outyears (if known)]		10% contingency		
529			\$ -	\$ -		\$m		
530			[Appropriation(s)]	[Source(s)]		Outcomes:		
531						Corporate Support outcomes		
532								
533								
534								
535					Timelines:			
536								
537								
538		2023/24	\$ 431.01					
539		2024/25	\$ 222.46					
540		2025/26	\$ 133.80					
541		2026/27 and beyond	\$ 6.60					
542			\$ 793.86	\$ 91.16	\$ 712.92			