

Appendix 4 – Anticipated Environmental Results

The contents of this appendix were previously included in previous versions of the regional plan as Chapter 12.

Kaitiakitanga

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is maintained.	Number of co-management agreements with iwi/hapu.	Plan performance monitoring.	Regional Council records.

Water Quality

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	All monitored river and lake bathing sites meet the Bathing Standard guidelines.	Bacterial levels.	State of the environment.	The Regional Council Bathing Suitability monitoring programme.
2	All rivers, streams and lakes meet their Water Quality Classification.	Dissolved oxygen Ammonia Temperature Clarity Periphyton Bacterial levels Suspended sediment.	State of the environment, compliance and impact monitoring.	NERMN water quality module, and consents and compliance reports.
3	Lakes do not exceed their individual TLI.	TLI. Frequency, location and species of toxic and non-toxic algal blooms, lake 'foams'.	State of the environment.	NERMN water quality and freshwater ecology modules.
4	Harbours, estuaries and the open coast waters meet their Water Quality (as established in the Bay of Plenty Regional Coastal Environment Plan).	Water quality in estuaries, harbours, open coast.	State of the environment.	NERMN water quality module, Bathing Suitability monitoring programme, consents and compliance reports.
5	Mauri of water is maintained or shows ongoing improvement.	Indicators to be developed in relation to Ministry for the Environment - Maori Environmental Performance Indicators programme.	State of the environment - community monitoring.	Regional Council community monitoring programme in relation to Ministry for the Environment - Maori Environmental Performance Indicators Programme.
6	Groundwater quality is maintained or improved where necessary.	Nitrate Evidence of saltwater or geothermal intrusion. Nutrient loading to land and water.	State of the environment Impact monitoring in relation to discharges of contaminants to land.	NERMN groundwater module, and consents and compliance reports.

Soil Resources

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	Soil health is maintained.	Acidity or alkalinity of soil. pH soil test Organic matter Change in area susceptible to reduction in soil health. Organic carbon.	State of the environment.	NERMN land sustainability module.
2	Soil intactness and slope stability is maintained.	Incidents of erosion, instability, slips. Change in areas susceptible to hill country erosion. % change in area of slip at selected sites. Change in area susceptible to high country degradation. Change in areas susceptible to agricultural impacts. Bulk density of soil.	State of the environment. Impact monitoring of resource consents. Specific or ongoing investigations in problem areas.	NERMN land sustainability module, and consents and compliance reports.

Water Quantity

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	River and stream flows do not fall below their instream minimum flow requirement as a result of abstraction.	River flow.	State of the environment, compliance and impact monitoring.	NERMN surface hydrology module, and consents and compliance reports.
2	No evidence of aquifer water levels falling as a result of abstraction.	No long-term fall in aquifer water levels as a result of groundwater abstraction.	State of the environment, and impact monitoring.	NERMN groundwater module, and consent impact reports.
3	Flood hazards are avoided or mitigated.	Flood damage reports. Incidence of flooding of lake-side developments in 2% AEP lake level fluctuations. Incidence of activities in the beds of rivers and streams, or in floodways obstructing flood flows.	State of the environment monitoring. Compliance and impact monitoring. Specific investigations in problem areas.	NERMN Surface Hydrology module. Consents and compliance reports. Individual flood investigations and reports to the Regional Council.

Beds of Streams, Rivers and Lakes

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	Stability of the banks and beds of rivers, streams and lakes is maintained, while allowing for natural erosion events.	Incidents of erosion and instability. The general condition of the beds and banks of rivers and streams improves to little or minor problems.	State of the environment. Compliance and impact monitoring.	NERMN river and stream channel module.

Geothermal Resources

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	No loss of geothermal surface features or ecologies.	Number and condition of geothermal surface features or ecologies.	State of the environment, compliance and impact monitoring.	NERMN geothermal groundwater module. Consents and compliance reports.

Wetlands

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	The overall extent, connectivity and condition (functions and values) of the region's wetlands are maintained, and where practicable enhanced.	Wetland extent from land cover data. Wetland condition.	State of the environment. Compliance and impact monitoring.	NERMN wetland module.

Ecosystems

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	Maintenance or enhancement of aquatic habitats relative to ecotype, and fish migration is not prevented.	MCI (Macro-invertebrate Community Index) Increased number of rivers and streams score 'good' or 'excellent' ecological aspects in the environmental quality index for rivers. Biodiversity (number, abundance and diversity of flora and faunal species). Occurrence of native fish, e.g. Giant Kokopu, Red Finned Bully. Presence of all life-stages of relevant fish species along length of river. Continued existence of	State of the environment, compliance and impact monitoring.	NERMN freshwater ecology module. Consents and compliance reports.

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
		identified spawning sites. Abundance of whitebait and other species by catchment or ecotype.		

Community Awareness of Environmental Issues

	Anticipated Environmental Result	Environmental Performance Indicator	Type of Monitoring	Information Source
1	Increased community awareness of environmental issues.	Percentage of people aware of specific issues.	Plan performance monitoring.	Regional Council attitudes and perceptions survey.