Attribute	Māori Use, Mahinga kai	Te Mana o Ruamāhanga - Mauri, habitat, biodiversity and natural character	Our Ruamāhanga river culture	Ruamāhanga economic use, resilience and prosperity	Ruamāhanga community public health and wellbeing	Ruamāhanga recreation	Notes, including reasons why not recommended attribute for modelling
Recommendations from John Bright of attributes TO BE USED IN MODELLING (does not restrict attributes from being used for objectives or monitoring)							
Glistening waters/visual clarity/suspended sediment	Y	Y	Y			Y	
Eel habitat	Y						
Macrophytes		Y?				Y?	May be able to build into the BBN
Algae biomass (periphyton)		Y				Y	
Nutrients – nitrogen (includes total N, nitrate, ammonia)		Y			Y		
Nutrients – phosphorus		Y					
Flow – flow rate, flow depth, flow regime, flow velocity in relation to specific uses		Y				Y	
Macroinvertebrate Community Index (MCI)		Y					
In-stream habitat		Y					
Pathogens, E. coli		Y			Y	Y	
Natural character index		Maybe				Maybe	Yes, if it can be derived simply from a number of the attributes that can be modelled directly.
Change in number of sites able to be used for cultural purposes and recreation			Y				
Cash farm surplus (reduces volatility) and the equivalent for other industry				Y			Only for farm businesses.
Farm return on capital				Y			
Number of jobs				Y			
Farm expenditure with urban businesses within/outside of catchment				Y			
Economic output per cubic metre water used/ EBIT per cubic metre water used				Y			
Number of days of irrigation restrictions				Y			
Resilience as measured through water storage e.g. standard deviation of catchment surplus ($)				Y			
Percentage of population who have access to potable water - in regards to drinking water standard					Y		
Swimmability						Y	If a composite of directly modelled attributes
Flounder habitat	N						Insufficient data for modelling
Freshwater crayfish habitat	N						Insufficient data for modelling
Spiritual waters	?						If the suitability of a water body for each of these uses can be expressed in terms of one or more attributes that can be modelled directly (the "Y's") then we may be able to model the status of these as Yes/No
Cleansing waters	?						
Baptismal waters	?						
Life giving waters	?						
Guiding waters	?						
Dissolved oxygen		N					Insufficient data to be able to model
Cyanobacteria		N				N	Insufficient knowledge to be able to model
Temperature		N					Insufficient data for modelling
Bird count		N					Measure current status using survey methods. Unable to use predictive models at this time due to lack of data/suitable models.
Health of species		N					
Diversity of wetland species		N					
Fish biotic index		N					Focusing on selected species
Flow attenuation in a catchment		N					Not able to model at fine enough scale
Fish passage		N					Modelling flow but not barriers e.g. culverts.
Sediment quality		N					Lack of data/suitable models
Sediment deposition		N				N	Lack of data/suitable models
Riparian area (model input)			N				A model input, not a prediction
More/less vegetation (model input)			N				A model input, not a prediction
Number of people who have/use pepeha/whakapapa			N			N	
Intergenerational use			N				

Indicator							Notes
Access / Accessibility, including number of legal campsites			N			N	Measure current status using survey methods. Unable to use predictive models at this time due to lack of data/suitable models.
Quality of connection			N				
Availability and suitability of weaving products (raranga)			N				
Pride in waterways			N				
Connection			N				
Awareness			N				
Confidence to use waterways			N				
Stories are passed on			N				
Sense of belonging (who you are etc.)			N				
Community, Sense of belonging, peace, informal traditions			N				
Social changes going on relevant to waterway use			N				
Oral histories are passed on			N				
Number of educational programmes operating covering river ecosystems, including Māori perspectives			N				
Average household income				N			No suitable model of the regional economy. Might be able to make a rough estimate using regional input/output tables.
Median income (currently $26,000)				N			
Change in salary distribution				N			No suitable model of the regional economy. Might be able to make a rough estimate using regional input/output tables.
GPI (genuine progress indicator) – if able to be measured at catchment scale?				N			Not feasible to model at catchment scale.
Wastewater network performance measures - e.g. infiltration and inflow %, no. of overflows?					N		Not modelling at fine enough scale to do this.
Weeds – terrestrial and aquatic e.g. danger to divers, boaters etc, thresholds						N	Measure current status using survey methods. Unable to use predictive models at this time due to lack of data/suitable models.
Smell – e.g. number of complaints received						N	
Litter – measure of presence/absence						N	Measure current status using survey methods. Unable to use predictive models at this time due to lack of data/suitable models.
Other pathogens						N	