

Waikato Objectives Framework: Summary of Attributes and Recommendations to Collaborative Stakeholder Group

Value	Attribute	In NPS-FM (2014) for given value	Freshwater Body Type in NPS-FM	Recommendation	Currently monitored (WRC)
Human Health	<i>E. coli</i>	Yes	Lakes and rivers	Apply as per NPS-FM (2014)	Yes
	Planktonic cyanobacteria	Yes	Lakes, lake-fed rivers	Apply as per NPS-FM (2014), but extend to include lowland river mainstem reaches	Yes
	Water clarity	No		Develop for lakes and rivers (use WRISS & published info.)	Yes
	Safety and aesthetics ⁺	No		Develop for lakes and rivers based on Tikanga and Mātauranga Māori	No
Ecosystem Health	Phytoplankton	Yes	Lakes	Apply as per NPS-FM (2014), but extend to include Waikato mainstem and lowland river mainstem reaches	Yes (Waikato Mainstem)
	Total Nitrogen	Yes	Lakes	Apply as per NPS-FM (2014), but extend to include Waikato mainstem and lowland river mainstem reaches	Yes
	Total Phosphorus	Yes	Lakes	Apply as per NPS-FM (2014), but to include Waikato mainstem and lowland river mainstems	Yes
	Periphyton	Yes	Rivers	Do not apply the Periphyton Attribute as per NPS-FM - limited relevance in most streams and rivers in the Waikato-Waipā catchment. Develop a %cover Attribute for surveillance monitoring based on existing WRC methodology (http://waikatoregion.govt.nz/tr201403)	No
	Nitrate	Yes	Rivers	Apply as per NPS-FM (2014)	Yes
	Ammonia	Yes	Lakes and rivers	Apply as per NPS-FM (2014)	Yes
	Dissolved oxygen	Yes	Rivers (below point sources)	Apply as per NPS-FM (2014), but extend to include all rivers rather than just below point sources	Yes (sites continuous or monthly)
	Macrophytes [#]	No		Develop Attribute for rivers for surveillance monitoring (http://waikatoregion.govt.nz/tr201403)	No
	Deposited sediment*	No		Develop Attribute for rivers	No
	Temperature ⁺	No		Develop Attribute for rivers	Yes (sites continuous or monthly)
Light climate [#]	No		Develop Attribute for lakes and rivers	No	
Mahinga Kai	<i>E. coli</i>	No		Develop Attribute for lakes and rivers	Yes
	Cyanobacteria	No		Develop Attribute for lakes and rivers	Yes
	Catch-per-unit-effort ⁺	No		Develop Attribute for lakes and rivers	No
	Heavy metals ⁺	No		Develop Attribute for lakes and rivers	Some

*Decision of CSG to not include this attribute

+Attribute considered by CSG to be out of scope or partly out of scope (safety/aesthetics), or TLG questions whether is in scope

#May be considered

CSG decision 30-31 October 2014

Out of scope:

- Heavy metals
- Flows and levels (quantity)
- Temperature
- Some of the swimming choice factors (safety/aesthetics) (e.g. swinging trees)

In scope:

- *e. coli*
- Sediment, but not sure if deposited sediment is right measure/can we relate it to land use? Should we use a suspended sediment measure instead?
- Clarity

Maybe consider:

- Light climate – covered by clarity?
- Macrophytes (should it just be in lakes; should it be considered out due to things outside of the control of the CSG, i.e. not the 4 contaminants, are bigger influences of macrophyte levels?)
- N and P in small streams – why not?