

Title: Gaps and management options for nutrients and sediment

Purpose: To reflect comments by the Ruamāhanga Whaitua Committee on nutrient and sediment management in the Ruamāhanga catchment

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Gaps and management options for nutrients and sediment

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1. Background

At the workshop on 9 February 2016 the Ruamāhanga Whaitua Committee (the Committee) received material on current nitrogen, phosphorus and sediment management in the Ruamāhanga whaitua. Following a presentation by staff, the Committee discussed gaps, what needs to be done differently and potential management options. This report contains a record of the comments made by the Committee at the workshop together with notes from the Project Team.

2. Identified gaps and management options

The following topics provided a starting point for discussion: sediment/phosphorus regulatory; sediment/phosphorus non-regulatory; nitrogen regulatory; and nitrogen non-regulatory. Committee members moved from one topic to another, the comments were recorded for each topic and are given in the first column of the tables below.

In this report, the regulatory and non-regulatory topics are combined in the tables below because the workshop feedback material did not distinguish between these topics. The second column provides additional notes from the Project Team members who have put this report together to respond to or clarify the workshop material.

In presenting the management options part of the material, a third column has been added to identify where options for phosphorus/sediment management are also relevant to the nitrogen topic (Table 1). Conversely, management options from the nitrogen discussions (Table 2) relevant to phosphorus/sediment discharges are identified in the third column of that table.

Table 1: Gaps/what needs to be done differently and management options for phosphorus/sediment

Topic: Phosphorus/Sediment	
Gaps/what needs to be done differently	Notes
Take an effects based rather than activities based approach	
The adverse effects of cultivation and break feeding could be reduced by bunding or other mitigation.	Bunding would satisfy permitted activity conditions provided it resulted in sediment laden water not flowing to a surface water body
Control sediment from vineyards? Pollutants from pesticides	Relates to potential contaminants other than Nitrogen (N), Phosphorus (P) and Sediment (S) (e.g. contaminants from tanilised posts).
Farm plans must be simple to prepare and easy to use – use Land Use Classes	Included as a management option. Note that LUC is currently used by Wellington Regional Council (WRC) in farm planning.
Stormwater running off roads in urban areas and highways where they cross rivers	Stormwater discharges from roads and urban areas in the proposed Plan require resource consent (R51, R52).

	Contaminants other than N, P and S are also likely to be involved.	
How is phosphorus controlled in the resource consent for community discharges?	There are discharges to land and discharge to water components. For the current Masterton wastewater consents, once the diffuser is installed standards shall apply to the discharge of nitrogen, phosphorus and sediment.	
How do you deal with phosphorus in the sediment at the bottom of rivers and lakes?	Also included as a management option.	
Removal of nutrients from farm drainage systems		
Addressing the “80/20 rule” – how to tackle the 20% that are not managing appropriately?	80/20 rule refers to a rule of thumb for people 80% of people using good practice and 20% do not.	
Perhaps a license to farm based on management?		
Topic: Phosphorus/Sediment		
Management options	Notes	Nitrogen relevant?
Farm plans can address nutrients and sediment and should include Land Use Capability		Yes
Increased funding for more farm advisors and iwi advisors would benefit outcomes - committing to long term		Yes
Use of productive wetlands		Yes
The options for removing sediment in the bottom of rivers and lakes should be explored	Potential adverse environmental effects also need to be considered.	No
Broader options for ownership and funding of stability works		No
Raise awareness and provide incentives for land use systems that reduce adverse effects – for example facilitating the use of beehives on erosion prone land		Yes
Greater use of education tools		Yes
Requiring consent for those not doing good management	Would help address the “80/20” rule by targeting those not managing appropriately.	Yes

Greater flexibility on who a landowner can work with, both within and outside regional council	Would help address “80/20” rule through enabling assistance from recognised organisations.	Yes
Having clear arrangements for what happens under leasing and covenanting arrangements	Clarity is needed on whether the lessee or leaser is responsible (e.g. Who pays for farm plans?).	Yes
Facilitate exchange of information when landowner/leasing arrangements change	Make sure relevant land use information held by the Council is available.	Yes
Making more tools available – example used was sediment traps (in upper catchments and main waterways)		Yes
Raising awareness of benefits - example of the promotion of carbon as an advantage		Yes
Working with farmer organisations on good management practice and best management practice		Yes
Succession planning and knowledge transfer	Resource information such as that provided for farm plans needs to be widely available.	Yes

Table 2: Gaps/what needs to be done differently, and management options for nitrogen management

Topic: Nitrogen	
Gaps/what needs to be done differently	Notes
Lack of limits on water quality affecting point source discharges	
Lack of integrated framework to manage water quality in respect of discharges	
Good management practice approach requires more emphasis and support	
Objectives for water quality do not respond to catchment cumulative effects	
Management of nitrogen in fertiliser does not address potential contamination from heavy metals in the fertilisers	
Identifying water quality issues at the	

whaitua scale that need investigation		
Lack of lever to control river management (e.g. geomorphology to help in management of nutrients)	Also relevant to river management discussion	
No non-regulatory methods for point source discharges of waste water		
Innovation is needed for managing point source wastewater discharges to create good management practice	A good management practice approach can incentivise rather than rely on a bottom-line approach.	
Require trained and qualified wastewater plant operators		
Topic: Nitrogen		
Management options	Notes	Sediment/ Phosphorus relevant?
Optimise the discharge regime so that effects on the river are minimised (eg.timing)		Yes
Keep water in river instead of improving discharge.	Changing the water allocation regime to leave more water in the river.	
For rural discharges of non-point source N, be responsive to risk of run-off at different times of the year (e.g. autumn rains) – better response to effects		Yes
An approach of good management practice is supported		Yes
Use a water quality limits framework that divides sub-catchment into loads to retain good water quality down the catchments		Yes
River management to respond to other (e.g. water quality) objectives – application of natural character index		Yes
Community stormwater programmes for tanks and soakage (point source discharges)	Appropriate community measures can lead to simpler practices and co-benefits.	Yes
Encourage deficit irrigation (planting and harvesting		Yes
Reduce regulatory barriers (easier consenting)		Yes

Explore other applications for nitrogen, e.g. use of wastewater for farmland		Yes
More fam advisors facilitating nitrogen management		Yes
Nitrogen management education programme (good times bad times)	Providing advice on stocking rates, feed, fertiliser, discharge timing etc.	Yes
Subsidise wetland creation (e.g. below tile drains)		Yes
Nitrate numeric in sub-catchments can be achieved by good practice		Yes
Innovate now for current best practice, in time, becoming good practice	Recognises that good practice is changing.	Yes
De-regulate/incentivise stormwater/wastewater containment and link to deficit irrigation		Yes

The material provided in the tables should be treated as a working document. It will help inform the development of policy options around phosphorus, nitrogen and sediment management. The next water quality topic for discussion by the Committee is pathogen discharges. The results of the Committee discussion will be combined with the information above.

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