DRAFT management options explained

This factsheet provides some further information about three of the many draft management options being considered to improve water quality.

Retirement of compromised lowland farmland around highly degraded estuaries

The Maketū and Waihī estuaries are highly degraded. Intensive lowland farming around the estuaries generate a relatively high proportion of contaminants flowing into the estuaries. Initial assessment shows some areas closest to the estuaries experience saltwater intrusion and/or frequent saturation, resulting in reduced productivity. In the medium to long-term, more extensive areas of low-lying land are also expected to be impacted by sea level rise and more frequent inundation and flooding as a result of climate change. This would compromise productivity and the ability to drain that land in the future. This may also affect Ōhiwa Harbour and Waiōtahe Estuary.

Catchment modelling shows that retirement of these areas into wetland/saltmarsh would significantly reduce nitrogen, phosphorus, and faecal contaminants flowing into the estuaries, and improve ecosystem health.

Bay of Plenty Regional Council (BOPRC) is considering whether to require the retirement of part or all low-lying farmland that is currently compromised either by saltwater intrusion or frequent saturation (Options 1 and 2). BOPRC has also mapped a much larger area of land that is likely to be compromised in the medium to long term due to sea level rise, flooding and higher water tables and may need to be retired (Option 3). The implications of these options are being assessed.

The map illustrates areas affected by the draft options.

PLEASE NOTE:

Maps should be considered draft and indicative only. They rely on the best available information, but that information is not perfect.

Freshwater body stock exclusion and riparian setbacks

Excluding stock from waterbodies and providing vegetated setbacks or buffers between waterbodies and farmland can provide a range of environmental benefits, including:

- Preventing direct contaminant deposition from stock into waterbodies
- Preventing stream bed disturbance
- Reducing erosion (particularly stream bank erosion)
- Filtering overland flow
- Improved deposition and infiltration in setback areas
- Improved habitat for native fish and birds
- Shade, reduced water temperature and light penetration in the stream (reducing algal growth)
- Carbon sequestration

The effectiveness of setbacks increases with width up to a point. The risk of contaminants entering waterways increases with slope, therefore, it is desirable for buffer widths to increase with slope.

While national Stock Exclusion Regulations (SER) require some stock exclusion and riparian setbacks for large rivers (>1m wide), lakes and wetlands, mainly on low slope land, there are many rivers in this region which these will not apply to.

BOPRC is considering and assessing costs and benefits of additional stock exclusion and riparian management rules as summarised in the table below. It is possible these could be applied to all or part of the region, and the settings (slope, setback, etc.) could be altered.

The map shows the slope classes being considered for these draft additional stock exclusion and riparian management rules.

Land use	Slope Class	Minimum required setback	
		REGION-WIDE: Lakes and permanently flowing rivers (natural and modified, including drainage canals) >1m wide and drains	MODERATE OR LARGE REDUCTION[1] ONLY: Permanently flowing rivers ≤1m wide
Dairy, Intensive Drystock* & Arable	Low slope (up to 5°)	3m** 1.5m for drains (both sides)	2m
	Medium slope (up to 10°)	5m	3m
	High slope (up to 25°)	10m	5m

1 *Moderate or large load reductions for at least one contaminant are expected to be required in the Tauranga Moana, Kaituna, Waihī-Pongakawa, Tarawera, Ōhiwa Harbour, Waiōtahe, Waioeka-Otara and part of the Rotorua Te Arawa Lakes and East Coast FMUs.*

* *Intensive drystock = "intensively grazed" beef or deer (as defined in the SER) and dairy support*

** *While this is the same as the standard buffer required under the SER, an option being considered is that the exemption for pre-existing fencing and vegetation under Schedule 1 of the SER be removed in regional rules and a timeframe for replacement added.*

Retirement or grazing restrictions on steep land

Slope and land cover influence the amount of contaminant loss from land to waterbodies, particularly sediment. Steep areas in pasture have higher erosion rates. Afforestation (in plantation or permanent forest) of steep pastoral land would generally reduce losses of nutrients, sediment, and *E. coli.*

Two draft options are being considered, and their costs and benefits are being assessed:

- Retiring or restricting stock grazing on areas of steep pasture >25 degrees; and
- Retiring or restricting stock grazing on areas of steep pasture > 30 degrees.

The map indicates the areas where these draft options could apply. It is possible these could be applied to all or part of the region or in certain soil/climate areas.

PLEASE NOTE:

Maps should be considered draft and indicative only. They rely on the best available information, but that information is not perfect. The slope maps only identify properties that were in pastoral land use as of 2017. Any properties that have changed to pasture land use since 2017 are not identified, but draft management options would apply to those properties.

Phone: **0800 884 880**
Email: **freshwater@boprc.govt.nz**
Visit: **boprc.govt.nz/freshwater**

TOI MOANA
BAY OF PLENTY
REGIONAL COUNCIL