

General Good Management Practices

The following good management practices are applicable on all physiographic zones.

Depending on the physiographic zones and variants (if applicable) which your farm is in, there may be key transport pathways and contaminants that you need to include good management practices for in your farm management plan.

The table below shows which key transport pathways are applicable in each physiographic zone to help you work out which of the other GMP factsheets are relevant to your property.

Please note

You can search for your property and view the physiographic zones map on <http://gis.es.govt.nz>

Physiographic zone	Key transport pathways (✓)		
	Overland flow ¹	Deep drainage (leaching to groundwater) ²	Artificial Drainage ¹
Alpine	✓		
Bedrock/Hill Country	✓(o)		✓(a)
Central Plains		✓	✓
Gleyed	✓(o)		✓
Lignite-Marine Terraces	✓(o)		✓(a)
Old Maitāura		✓	
Oxidising	✓(o)	✓	✓(a)
Peat Wetlands		✓*	✓
Riverine	✓(o)	✓	

NOTE:

¹ Overland flow and artificial drainage transport nitrogen, phosphorus, microbes and sediment

² Deep drainage transports nitrogen, except in Peat Wetlands, see * below

* Deep drainage transports phosphorus rather than nitrogen, and lateral drainage of phosphorus and microbes through the soil is also a key pathway in the Peat Wetlands (mitigations are the same as for deep drainage)

✓(o) denotes that overland flow is only a key transport pathway in the parts of the steeper parts of the physiographic zone, referred to as the (o), or overland flow variant (refer to physiographic zones map)

✓(a) denotes that artificial drainage is only a key transport pathway in parts of the physiographic zone where there is artificial drainage, referred to as the (a), or artificial drainage variant (refer to physiographic zones map)

Some example good management practices which could be included in your Farm Environmental Management Plan include¹:

Mitigation	Example	✓
Capture nutrients sediment and microbes in wetlands and sediment traps	Protect and enhance natural wetlands by fencing (temporary or permanent) to exclude cattle and deer, and leaving buffers when over sowing, topdressing and burning - Alpine physiographic zone	
	Seek advice from Environment Southland land sustainability team to identify wetlands	
	Install sediment traps where relevant (an engineered structure to slow water flows, reduce energy, filter sediment and allow grass growth, e.g. decanting dam, detainment bunds)	
	If constructing a wetland, incorporate appropriate plants (such as red tussock, New Zealand flax, purei (carex secta), raupo, and South Island toetoe) and sediment traps, consider locating near seepage zones where relevant	
Nutrient management	Prepare a nutrient budget (required by Appendix N)	
	Keep soil Olsen P levels at biological optimum; soil test regularly to check	
	Use proof of placement for fertiliser and/or farm dairy effluent application	
Riparian management	Fence stock out of waterways	
	Put in culverts or bridges at regular stock crossings	
	Improve on-farm infrastructure to keep stock out of waterways (reticulate stock water, improve stock crossings, plant shade trees away from water)	
	Undertake riparian planting	
Effluent management	Increase land application area to ensure N and K returns are not excessive	
	Increase storage volume, where needed	
	Minimise effluent volumes at source (by reducing wash water volumes and rainwater in the system)	
	Use low rate effluent application methods where required - this is soil and landscape dependent	

¹Regardless of the good management practices chosen, the entire farm environmental management plan must be prepared in accordance with Appendix N. On-farm actions must comply with all relevant rules in the Southland Water and Land Plan 2016, and any relevant resource consent conditions.