

Critical Source Areas (CSA) – Waterways

Critical Source Areas are small areas of a farm that can deliver a large share of sediment, nutrients and microbes to waterways.

Managing these areas carefully helps target management where it will make the biggest difference.

Waterways and flow paths can be categorised into four types; Perennial, Intermittent, Ephemeral & Low-Lying Areas. The level of risk and the management required differs between each type.

Waterway Type	How do I recognise it?	Key Requirements	What can I do?
Perennial 	A river or stream where water is present and flowing throughout the year. Example: Mt Harding Creek.	A permanent fence is required at least 3 meters* from the edge of the waterway, unless constructed prior to October 2023. A permanent fence minimum standard is a 2-wire fence. Land used for Intensive Winter Grazing (IWG) must be at least 5 meters* from rivers, lakes, wetlands and drains.	Maintain effective 3 meter* stock-exclusion. Maintain a well-vegetated riparian buffer to intercept sediment and nutrients. Keep fertiliser/effluent application away from the waterway and comply with required setbacks and consent conditions. Only apply effluent when soil conditions allow it to infiltrate and be taken up by plants – i.e. not where it could pond, run off or enter the waterway. Protect gateways, crossings & other high-traffic areas from pugging and runoff.
Intermittent 	A river or stream with a defined bed that remains visible when water is not flowing. It may flow seasonally or only during wetter parts of the year. Stock exclusion rules apply to the bed of the river, not whether water happens to be flowing at the time.	An intermittent waterbody can still be treated as a waterbody even when it is dry. A permanent fence is required at least 3 meters* from the edge. The minimum standard is a 2-wire fence. IWG must be at least 5 meters* from rivers, lakes, wetlands and drains.	Treat the defined bed as a waterway year-round, even when dry. Maintain 3 meter* stock exclusion and a vegetated buffer. Consider the current soil moisture and forecast rainfall before applying effluent/fertiliser. Keep stock camps, troughs and other point-source risks away from the flow path.

**Distances shown are minimum regulatory standards and may not reflect requirements under individual resource consents. Shareholders must comply with any greater setback distances specified in their resource consent conditions.*

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Ephemeral 	A temporary flow path that carries water briefly e.g. after heavy rainfall, then becomes dry again. It does not have the persistent characteristics of an intermittent river. For example, there may not be a clear 'bed', and/or it may rarely flow e.g. one year in five. Ephemeral flow paths can be important Critical Source Areas, particularly during heavy rainfall, effluent application and winter grazing.	When water is present, the risks must be identified and adequately managed by maintaining vegetation, fertiliser, effluent and stock management. Stock must be excluded by at least 3 meters* when water is present. A temporary fence may be used. Effluent application must be managed so that effluent does not enter, pond within, or move along identified ephemeral flow paths. Application methods should be capable of reliably excluding these areas where required. Ephemeral flow paths should not be Intensively Winter Grazed and vegetation should be maintained. IWG setbacks should be assessed on a risk-based approach where more common flow paths might be best to be excluded from cultivation.	Identify flow paths prior to grazing, fertiliser/effluent application or cultivation. Maintain vegetation at risk times of the year through the flow path to help slow runoff and capture sediment and nutrients. Temporarily exclude stock when soils are wet or runoff is likely. Manage grazing direction and stocking pressure to minimise pugging and sediment loss. Plan effluent application so identified flow paths can be reliably excluded. Consider the capability and accuracy of the application system, particularly where flow paths sit within irrigated or effluent application areas. When there is risk of the flow path becoming active, limit grazing to keep a vegetative buffer and reduce erosion and pugging potential. Avoid applying effluent directly to or across known flow paths where/when there is a risk of runoff. Before applying effluent or fertiliser consider soil moisture, infiltration capacity, recent rainfall and forecast rainfall - not just whether water is currently present. Use available effluent storage and only apply when conditions are suitable.

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Low Lying Areas 	Hollows, depressions or poorly drained areas where water ponds or collects following rainfall. These may only contain water for short periods (for example, two weeks in one year) and are Critical Source Areas because they can concentrate runoff, nutrients and sediment.	When water is present the risks are identified and adequately managed by maintaining vegetation, fertiliser/ effluent exclusions and temporary fencing. Stock must be excluded by at least 3 meters* when water is present. A temporary fence may be used. IWG setbacks should be assessed on a risk-based approach where more common flow paths might be best to be excluded from cultivation.	Keep good vegetative ground cover. Avoid grazing when saturated or when ponding is likely. Use temporary fencing where required to protect wet areas. Before applying effluent, consider soil moisture, infiltration capacity, recent rainfall and forecast rainfall. Avoid applying effluent to areas that are wet, saturated, ponded or likely to become saturated. Avoid unnecessary application to regularly wet areas or ahead of significant rainfall. Identify where water enters and leaves the area and manage those pathways as part of the wider CSA.

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