



A guide to plugging the leaks to waterways



A common leak into a waterway

Clean, healthy waterways are important to Southlanders not only for our lifestyle but also because of their economic value to our community.

We are all aware that there are significant challenges in improving our water quality, with the need to reduce the amount of contaminants getting into our ground and surface water.

There are a number of good land management practices that can get you on the right track to see improvements, and there are many working on innovations that will have positive

results over time. Meanwhile, it's time to think about what you can do quickly and efficiently to make an immediate and meaningful difference.

Water quality problems are described as 'death by a thousand cuts'. Those small leaks into ground and surface waters have only minor impacts individually, but when added together, the accumulated impacts can cause a big problem.

► Plugging leaks check list

Let's start by plugging as many of these leaks as possible. Use this check list to identify leaks and tick them off as you stop them.

CONTAMINANT SOURCE	KEY ACTIONS	✓
All plastics	Use good management practices when cleaning, store securely and recycle	
Bores and wells	Keep all contaminants well away, prevent surface water ponding	
Bridges	Raise entrances and fit side walls	
Chemical storage	Secure and not leaking, away from tiles or waterways	
Critical source areas	Include in riparian zone or manage grazing to have grass filtering	
Crossings	Rock approaches, minimise stock use, direct flows onto pasture	
Cultivation	Minimal tillage, good management practices, wide buffers, reduce wind erosion	
Culverts	Fit side baffles and direct water onto pasture or into sediment trap	
Dead stock	Good management practices around land disposal or burning, best to have collected	
Effluent disposal	Good management practices, wide buffers from tiles and critical source areas, avoid mole tiles	
Effluent storage	Good management practices, pond not leaking, clean water diverted, not over full	
Erosion	Stock management or exclusion, plant trees, thick grass cover	
Fertiliser spreading	Good management practices, efficient spreading technology, track mapping	
Fuel storage	Bunded and not leaking, away from tiles or waterways	
Gateways	Site back from waterway edges, contour away from waterway	
Lane scrapings	Stack away from tiles, critical source areas or spread onto pasture when still wet	
Lanes	Direct flows onto pasture, correct effluent hotspots	
Machinery washing	Wash on pasture or drain into effluent system or sediment trap	
Open drain cleaning	Only remove accumulated sediment and weeds as required	
Open drains	Exclude stock, filter surface water runoff through grass buffers	
Paint	Water based washed on pasture, enamel to waste disposal facilities	
Pugging	Stock management, fencing, shelter, rocking, back fencing	
Riparian zones	Exclude stock, filter surface water runoff through grass buffers	
Rubbish landfill	Do not mix offal, rubbish and vegetation. Keep separate	
Scrap metal piles	Store away from tiles, waters, critical source areas, recycle	
Septic tanks	Away from tiles, critical source areas and waterways, replace with modern system	

CONTAMINANT SOURCE		KEY ACTIONS	✓
Silage stacks	Non permeable base and leachate storage and dispersal system		
Sludge dispersal	Avoid critical source areas, tiles, mole tiles and wet weather		
Soil compaction	Stock management, minimise vehicle movements, aerate soil		
Stock corridors	Direct surface water from waterways, minimise pugging		
Stock washing	Away from tiles or waterways, drains onto pasture		
Stock yards	Contour to direct water onto pasture or sediment trap		
Tile cleaning	Flush accumulated sediments into a hole or onto pasture		
Tile system	Prevent any direct surface water access into tiles		
Tracks	Direct flows onto pasture or into sediment traps		
Treated timbers	Store away from tiles, waters, critical source areas, bury in topsoil, no burning		
Tyre stacks	Covered when not in use, store on non-permeable base		
Used animal bedding	Spread across a paddock do not fill hollows or pile near rivers		
Vegetation piles	Stacked away from tiles, waterways and critical source areas, burnt when dry		
Vehicle yards	Contour to direct water onto pasture or sediment trap		
Wallows	No direct discharge into waterways, away from waterways, tiles		
Waste baleage	Spread across a paddock do not fill hollows or pile near rivers		
Waste oil	No disposal to land, store and recycle		
Water troughs	Keep out of critical source areas, away from waterways and tiles, rock pugging		
Waterways	Repair bank erosion and have good riparian management		
Wintering	GMPs, no crop over main tiles, filter surface ponding discharges		

More information

For more specific information, check out Environment Southland's other guides, case studies and read some of your industry publications. Store this list in your farm plan to prioritise actions and to show what you have achieved

Further assistance

For specific advice and designs to plug those more challenging leaks, call to arrange a free visit with one of our land sustainability team on 0800 76 88 45