

# Spot the Hotspot

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Farm environment management plans (FEMP) are a useful tool that can be used to identify and summarise environmental risks on a property. The Plan can then outline how those risks can be managed.

The Opus Rural Team have developed an independent process for delivering FEMPs. Each plan highlights the good and the not so good, farmers are provided with a detailed farm plan identifying farm practices and infrastructure which are environmentally sound, and other which need improvements. Opus Rural provides realistic advice and solutions for implementing change. Our plans encompass the relevant Regional Council requirements.

The photos in our poster are taken from some of our FEMPs. They show a few of the questions that the

Opus Rural Team can tackle when developing a FEMP.

Opus's qualified staff come from a wide range of professions including civil and geotechnical engineers, environmental scientists and planners. Our Rural team delivers the following services: soil survey, sediment and erosion management plans, nutrient management plans, design of wetland and riparian development planting or restoration, design and optimisation of capital works including effluent and irrigation systems, and independent land use change feasibility reports. We have local rural staff in regional offices across the North and South Islands. In regards to FEMPs, Colin Stace is an approved FEMP provider for Hawkes Bay Regional Council, and Anne-Maree Jolly is a Certified Nutrient Management Advisor. Together they can provide sound environmental and nutrient management advice.

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**Issue**  
improvised, un-managed feed pads

**Fix**  
Locate away from water courses and not on free draining soils  
Control surface water flows – use bunds or interception drains to divert upslope water from flowing across the site, and to divert pad runoff onto grassed areas away from watercourses



**Issue**  
stock access to ephemeral (seasonal) watercourses

**Fix**  
Temporary (single hot wire) fence when stock are in the paddock  
Provide alternative stock water



**Issue**  
sheet erosion of cultivated soil

**Fix**  
Cultivate on the contour  
Use no-till cultivation  
Provide grass buffer strip zones at downslope end of cultivated paddocks, 5 – 10 m wide



**Issue**  
trough pad and track drainage to waterways

**Fix**  
Locate troughs to avoid pad /stock track drainage to waterways  
Redirect table drains to avoid direct discharge to waterways where possible  
Form silt traps in table drains and maintain regularly



**Issue**  
track surface acting as a watercourse, with eventual discharge to a waterway

**Fix**  
Use cut-off drains or crown track to direct surface flows into table drains  
Regularly maintain track surfaces, table drains and culverts



**Issue**  
poor culvert installation

**Fix**  
Trench / locate to allow at least 800 mm of fill over the pipe  
Compact backfill, including around the lower sides of the pipe  
Stabilise the culvert outlet (splash pad) and consider headwalls at the culvert pipe inlet & outlet



**Issue**  
poor culvert design

**Fix**  
Select pipe size for a 50-year storm (2% AEP)  
Compact and surface stabilise embankments  
Provide an adjacent flow path to prevent embankment over-topping during large storm events



**Issue**  
poor spillway / dam outlet design & construction

**Fix**  
Get professional design advice regarding flow capacity and gradient  
Use correct methods and materials for stabilisation, seek professional design advice



**Issue**  
siting trough pads on the margins of waterways

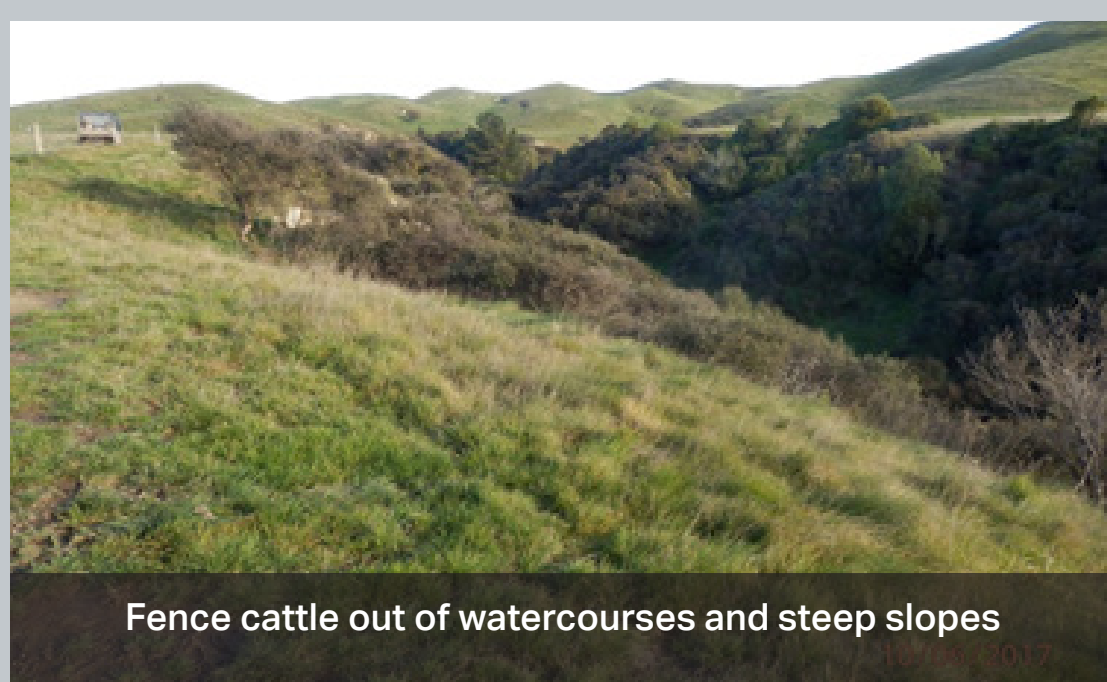
**Fix**  
Accommodate this factor when planning / setting out stock water supply  
Move existing troughs at least 20 m away from waterways (especially if fencing a waterway)



**Issue**  
overflowing trough saturating the pad (high P zone) enhancing mobility and transport of P to adjacent surface flow paths

**Fix**  
Repair that valve, now (and save on water supply running cost)

## Some Good Practice



Fence cattle out of watercourses and steep slopes



Tree planting on erosion-prone terrain



Provide grass filter strip between cultivation and waterway



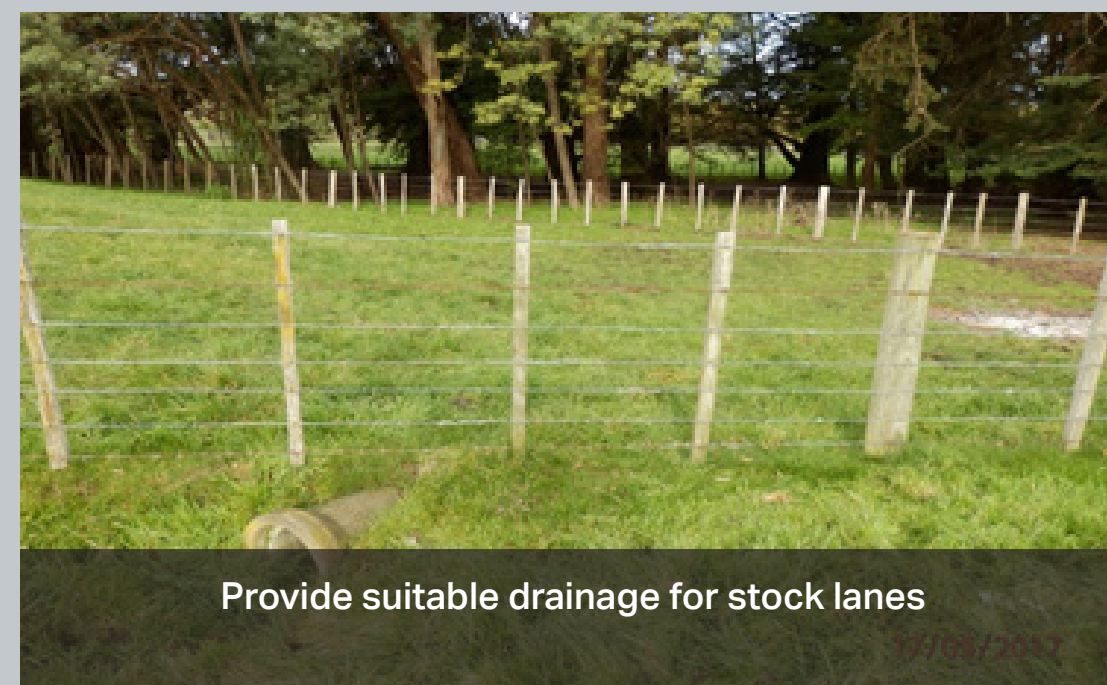
Leave swale (flow path) uncultivated as a grass filter strip



Provide upslope diversion of surface water from stockyards



Discharge track runoff to grassed areas, not directly to watercourse



Provide suitable drainage for stock lanes



Consider opportunities to convert disused farm dams into constructed wetlands



If farm dam filling with sediment, look for causes and manage



If disused farm dam of sufficient size available, consider enhancing as a sediment trap