Date

ACTION PLAN:
WASTE MANAGEMENT

01 What information will I need?

- Farm map showing risk areas
- Farm soil map
- Deer Industry Environmental Management Code of Practice: Waste Management, Farm Effluent and Wastewater Management p49-54

Tick these off as you go

- ○ 1. Collect the information you'll need
- ○ 2. State your goals for this target area
- ○ 3. Identify the risks
- ○ 4. Document and work out how *high* the risks are
- ○ 5. Record what you've already done
- ○ 6. Set out what you still need to do

Then monitor progress, e.g. changes in stream water quality

There's a template to fill these in at the end of the document

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02 Goals

Start by setting simple overall goals on contamination risk. **Here are some examples:**

My goals for managing contamination risk are:

1. *I want to ensure no leachate from my silage stacks gets into waterways*
2. *I want to have secure and sustainable offal and rubbish disposal*
3. *I want to maximise recycling of waste such as plastics*
4. *All chemicals properly stored and recycled*

Go to the template at the end of this document to fill in your goals and the other parts of your Action Plan.

03 What are the risks from contamination?

The main sources of on-farm environmental contamination are offal (bacteria), rubbish (leachate, heavy metals, toxins from burning), silage leachate (nutrients), chemicals (fuel/animal remedies/spray spills or spray drift), and effluent from washdowns of vehicles or deer sheds (nitrogen, phosphorus, bacteria, chemicals, mud, weeds). The risk is higher where these are close to waterways.

DID YOU KNOW...

Burning is bad

Burning waste releases toxins into the environment. These can affect health, crops and water supplies. Especially avoid burning treated/painted/oiled wood, plastics, oils, paint, tar, rubber (including tyres), asbestos material, vehicle parts, synthetic foams, fibreglass or metals.

HANDY HINTS

Check local rules, mark sites, seek advice

- Your regional council will have rules about where you can put rubbish and offal pits and what can go in them.
- Mark the location of your rubbish dump and offal pits on your farm map.
- Contact your council for advice on disposing of hazardous waste (agrichemicals, batteries, oils etc)

Hazardous chemicals should be safely and securely stored.

04 How high are the risks from contamination?

Use this checklist to record the risks from contamination on your farm. **We've started with some examples below.** Tailor this to your situation using the template at the end. See the "Risk Assessment" module for how to assess level of risk:

Activity/location examples	Risk assessment	Comment *(make a note of anything specific to your place)*
Silage leachate getting into streams	● ○ ○	*Stack sited in low-risk area, all leachate collected for dilution and later use on pasture*
Release of toxins into air from burning	● ○ ○	*Waste is recycled or disposed of at approved facility*
Current dead animal hole is right by the waterway	○ ○ ●	*New dead animal hole needs built*
Old farm rubbish dump in a old filled in gully	○ ○ ●	*No longer used, but could be any number of things dumped in this gully over the past 50 years*

DID YOU KNOW...

Silage leachate can be toxic

Leachate from silage is concentrated and very high in nutrients, especially nitrogen. It can contaminate waterways and a big discharge can kill all aquatic life.

Ensure Silage stacks are sited well clear of waterways.

Effluent risk

- Effluent is a great way to recycle nutrients back onto pasture but there's a risk of leaching nitrogen, phosphate and bacteria if you use too much or the conditions aren't right.
- Most councils require you to have a resource consent to store and apply effluent. This will have conditions relating to effluent discharge. There might also be conditions about stock numbers, application depth, storage freeboard and proximity to waterways, boundaries and wells.

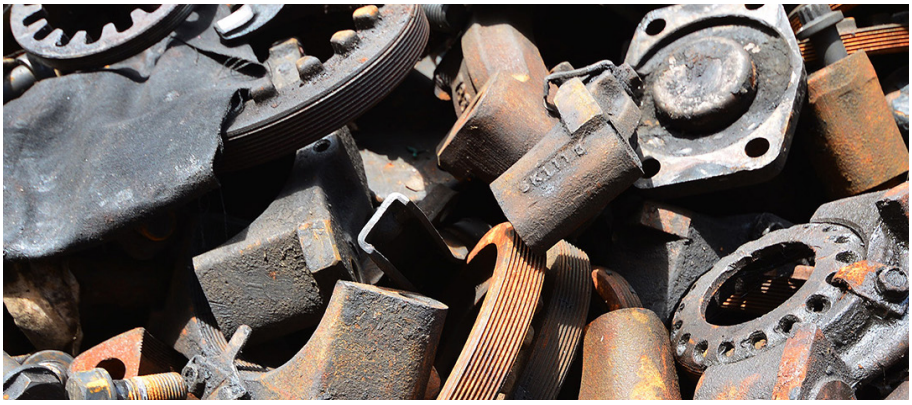
Storage and application of effluent may require resource consent.

Low Medium High

HANDY HINTS

Metal waste

Scrap merchants can take engines, vehicle parts, nails, wire, iron, copper etc. Alternatively, your local transfer station may accept scrap metals for recycling.



Hazardous waste

- Local transfer stations may be able to accept hazardous waste such as chemicals, fuels, oils, batteries, gas canisters etc.
- Contact your regional council for advice on disposal of agrichemicals or legacy chemicals such as 245T, DDT etc.

Sometimes it's impossible to avoid creating an on-farm dump (eg, where recycling or transfer stations are too far away). If you have to create an on-farm site:

- First check local council rules.
- Keep waste minimised so the site can be small, making remediation easier when it's full.
- Don't bury hazardous waste or recyclable household items.
- Locate it over clay or silt soils to reduce risk of contaminating groundwater.
- Avoid flood zones or areas prone to flooding/ponding.
- Place 6m above the water table.
- Don't place within any community drinking water supply protection area.

05 Actions to protect against contamination

Write down (a) what you've already done to protect against contamination from rubbish, offal, silage, effluent etc and (b) what you have got planned. Link it back to your goals and risk assessment (above). Include timing and who's responsible. **Here are some examples.** Record your own completed actions and planned actions in the template at the end.

Goal	Risk identified	Risk level	Action	Measure and monitor	Date initiated	Who
Stop silage leachate from getting into waterways	*Leachate getting into groundwater and killing aquatic life in stream*	○ ● ○	*Built new silage pit with impermeable floor and effluent collection*	*Check levels of effluent collected; monitor stream aquatic life*	*2017*	*Me, contractor, farm staff*
Avoid putting toxins in air from burning	*Disposal of farm rubbish*	● ○ ○	*Use AgRecovery or Plasback for chemical drums, silage wrap; recycle plastics, glass etc*	*Records, receipts from recycling company*	*2018*	*Me, farm staff, recycling company*
Avoid contamination from offal pit	*Seepage into waterways*	○ ● ○	*Build new pit away from stream, well above water table; Concrete lid*	*Visual checks; monitor stream health on farm*	*2020*	*Me, contractor*
Develop a good on-farm dead animal waste system	*Old dead animal hole is right next to the waterway*	○ ○ ●	*Get the contractor to build a new dead animal hole next time he is on farm*	*Note in records when new dead animal hole built and started to use.*	*Next Summer*	*Contractor*

● *Low* ● *Medium* ● *High*

HANDY HINTS

Good silage

- Unwilted silage can produce up to 500 litres of leachate per tonne of silage. With just 20% dry matter wilting, this reduces to 50–120 litres/tonne.
- Aim for rapid wilting to 25–32% dry matter. This also produces high-quality silage.

Properly wilted silage is better quality and yields less leachate than unwilted silage.

FOR FURTHER INFORMATION

Environment Southland: Farm waste brochure

Otago Regional Council: Landfills and offal pits

DairyNZ: Waste Management advice

Agrecovery

Plasback

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TEMPLATE: CONTAMINATION

Fill out your Action Plan for Contamination here.

Date

02 Goals

My goals for Contamination are:

03 How high are the risks from Contamination?

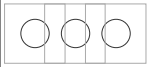
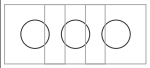
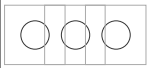
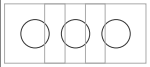
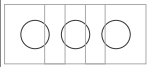
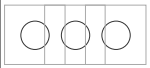
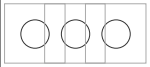
See the "Risk Assessment" module for how to assess level of risk:

Activity/location	**Risk assessment** *(low/medium/high)*	**Comment** *(make a note of anything specific to your place)*

Low *Medium* *High*

Actions: What I've already done to protect against Contamination

Write down what you've already done to protect against contamination. Link it back to your goals and risk assessment (above). Include timing and who's responsible.

Goal	Risk identified	Risk level	Action	Measure and monitor	Date initiated	Who
						
						
						
						
						
						
						

Low Medium High

Actions: How I will protect against Contamination

Write down what you've still got planned to protect against contamination. Link it back to your goals and risk assessment (above). Include timing and who's responsible.

Goal	Risk identified	Risk level	Action	Measure and monitor	Date initiated	Who

When you've completed this template, save this document onto your computer. You can amend it later if you need to.

Low *Medium* *High*