

Diffuse pollution risk assessment and Diffuse pollution steading assessment

This is an old version of the page

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Diffuse pollution risk assessment

The purpose of this is to carry out a basic assessment of the diffuse pollution risks that may be present on your holding.

This is required for all applications, except where you are only applying for Improving Public Access, Organic Farming or Upland HIA for deer management.

This will help to identify the options or actions that may be appropriate to help deal with these risks and where they should be located to maximise their effectiveness.

When assessing diffuse pollution risks it is important to consider whether diffuse pollution is actually occurring or whether there is a real risk of pollution occurring. In order to assess this; it is useful to think along the lines of the Source - Pathway -Receptor approach, as follows:

- 1. Has a **SOURCE** of diffuse pollution been identified? Examples include dirty yard areas, eroded areas at gates etc.
- 2. Is there a clearly identified **PATHWAY** for transporting the potential pollutants from the source to a watercourse? Examples include an open drain/ gully at a steading which drains to a watercourse or direct run-off from the source area such as a hardstanding and/or track to a watercourse.
- **NOTE:** lightly contaminated run-off which currently discharges onto grassed areas, with no direct run-off to a watercourse, is not generally considered to be a water pollution risk, even if there are underground field drains present.
- 3. Is there a **RECEPTOR** (receiving water). If no receptor has been identified then there is no real pollution risk. (NB. in some cases the receiving water may be outside the farm boundary, however if there is a connection (via drain or ditch etc) a pollution risk may still exist).

A water pollution risk only occurs if all 3 of the above can be identified.

Where SEPA has carried out a farm visit, have they identified a diffuse pollution problem or risk at the stearing and/ or out in the fields? There should be a letter from SEPA with a map/ plan identifying the pollution issues found. This could be used as a basis to create your own diffuse pollution assessment for the whole farm.

Field assessment

To complete the field assessment it will be necessary to walk the fields with a view to identifying any diffuse pollution risks and to look for opportunities to reduce these risks.

Field map

Using a map of an appropriate scale record as a line, point or shape as appropriate any diffuse pollution risks identified.

Depending on the size and nature of your land and the risks identified, you may either identify the risks on the Farm Environment Assessment map or prepare a separate Diffuse Pollution Field Map, as shown in the example below.

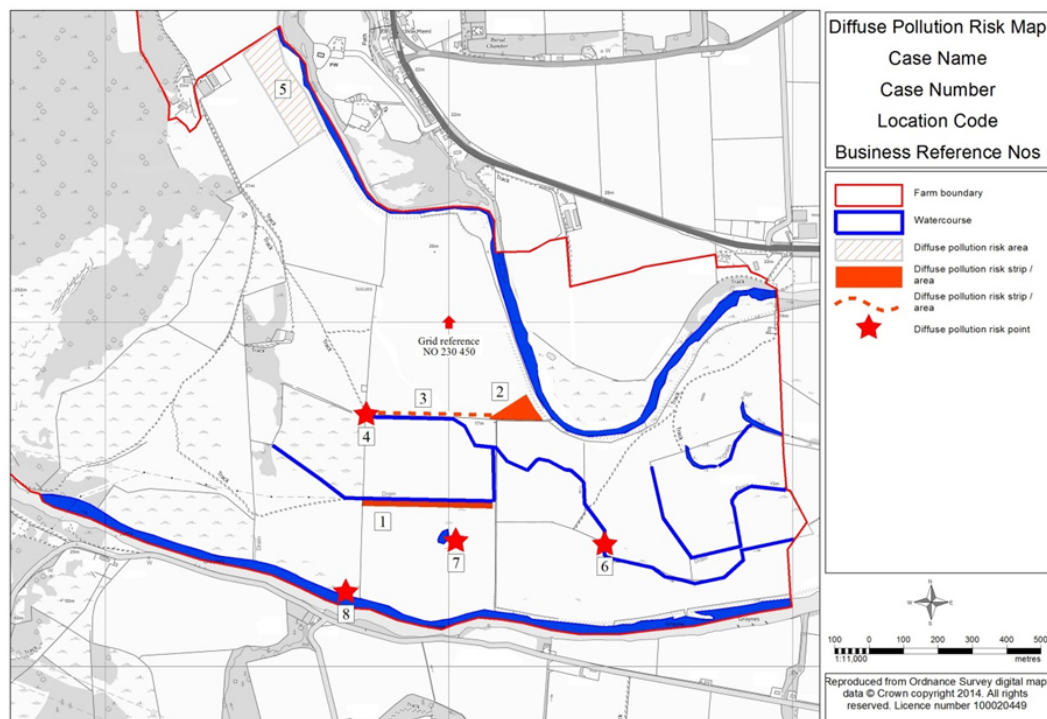
Each of these points must be individually numbered on the map and noted in a corresponding table which will describe the diffuse pollution risk found and what action can be taken to deal with it.

The location of all surface waters such as burns, ditches, ponds and wetlands etc should also be recorded.

Diffuse pollution risk factors will vary depending on the type of farm (arable or livestock) and on local factors such as, proximity to watercourses, slope of land and soil types, access of livestock to watercourses, location of gateways and tracks etc.

Guidance on factors to consider when carrying out a field diffuse pollution risk assessment can be found in the accompanying guidance for the options such as 'Alternative Watering' and the options for the 'Rural Sustainable Drainage Systems'.

When the initial assessment is complete the next step is to decide what action and/or options might be appropriate to help reduce diffuse pollution risks.



Number on map	Diffuse pollution risk	Action or potential options (for guidance only)
1	Grass field, cattle have direct access to ditch. Risk of poaching and erosion	- Alternative watering facilities

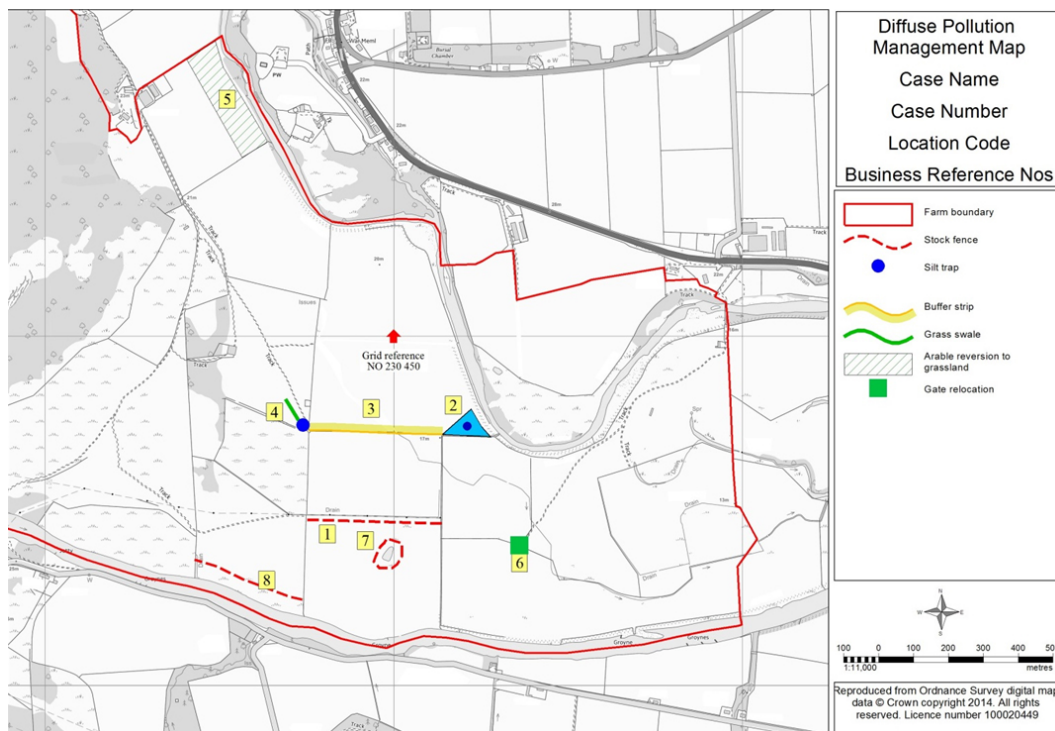
		<ul style="list-style-type: none"> - Water margin in permanent grassland field - Stocking rate low - continue to monitor area and take action if poaching occurs
2	Low corner of arable field. Run-off exit point. Risk of causing erosion in lower field and eroded soil entering burn	<ul style="list-style-type: none"> - Rural sustainable drainage system - sediment traps and bunds - Rural sustainable drainage system - pond - Creation of low input grassland to convert arable land at risk of erosion or flooding - Grass strip in arable field
3	Arable field sloping towards burn	<ul style="list-style-type: none"> - Grass strip in arable field
4	Risk of run-off from track entering ditch	<ul style="list-style-type: none"> - Rural sustainable drainage system - sediment traps and bunds - Rural sustainable drainage system - swale - Livestock tracks
5	Long uninterrupted slope in arable field. Risk of soil erosion	<ul style="list-style-type: none"> - Grass strip in arable field
6	Gate close to burn. Risk of run-off from poached area around gate reaching burn	<ul style="list-style-type: none"> - Hardstandings for troughs and gateways - Rural sustainable drainage system - sediment traps and bunds
7	Grass field, cattle have access to pond. Risk of poaching or erosion	<ul style="list-style-type: none"> - Alternative watering facilities - Water margin in permanent grassland field - Continue to monitor area and take action if any poaching occurs
8	Grass field, cattle have access to ditch for drinking. Risk of poaching and erosion	<ul style="list-style-type: none"> - Alternative watering facilities - Water margin in permanent grassland field - Continue to monitor area and take action if any poaching occurs

Management map

On a map and using a similar approach to the risk assessment mark the various actions that are planned to deal with the identified diffuse pollution risks.

Number each of the actions on the map to show their location. On a corresponding table, describe the actions to be taken or the options to be applied for – see example map and table below.

As for the field map, you may not need to have a separate diffuse pollution management map if the actions can be clearly shown in the Farm Environment Management Map.



You can either complete the table below or incorporate the information within the map key.

Number of map	Action or option to be applied for (for guidance only)
1	Water margin fencing and alternative watering supply
2	Rural Sustainable Drainage System - Bund and Pond in corner field
3	Water margin
4	Swale and sediment traps to capture run-off from track
5	Grass strip in arable field
6	Move gate away from burn and create a hardstanding around gateway
7	Water margin with fencing and alternative water supply
8	Stocking rate low - continue to monitor area and take action if any poaching occurs

Diffuse pollution steading assessment

You must complete this if you are applying for any of the following options:

- Rural Sustainable Drainage Systems – Wetland
- Rural Sustainable Drainage Systems – Sediment Traps and Bunds
- Rural Sustainable Drainage Systems – Swales
- Rural Sustainable Drainage Systems – Pond
- Hard Standings for Troughs and Gateways
- Livestock Crossing
- Livestock Tracks
- Managing Steading Drainage and Rural Sustainable Drainage Systems
- Pesticide Handling Facilities
- Water-use Efficiency – Irrigation Lagoon

You will need to produce a:

- Diffuse Pollution Steading Assessment Map
- Diffuse Pollution Steading Management Map

Many of the diffuse pollution risks on a steading are associated with surface run-off and drainage. Good management of drainage at the steading can help to significantly reduce these risks.

When assessing diffuse pollution risks from the steading consider the points below:

	Points to consider	Potential options
Steading drainage	Are all guttering and down pipes working effectively?	
	Are there any opportunities to reduce the volumes of dirty water produced through improved clean and dirty water separation?	Managing Steading Drainage and Rural Sustainable Drainage Systems
	Are there any opportunities to incorporate rural sustainable drainage systems (RSuDS) to treat run-off currently discharging direct to a water course?	RSuDS – Swales RSuDS – Pond RSuDS – Wetland RSuDS – Sediment Traps and Bunds
Slurry storage facilities	- How many months slurry storage capacity have you got? - Would additional storage help reduce pollution risks on the farm?	Slurry Storage
	Were the slurry stores built before 1 September 1991? If yes, have they been significantly enlarged or reconstructed since then?	
Pesticide handling facilities	- Is the pesticide store of sufficient capacity, protected from frost and bunded? - are there any drains or watercourses near the store that pesticide could enter if split?	Pesticide Handling Facilities
	Is the run-off from the pesticide mixing, handling and washdown facilities adequate to avoid any risks of pesticide entering a drain or watercourse?	
Silage clamps and silage effluent	- Are the silage making facilities adequate in terms of capacity, permeability and structural integrity? - Is there sufficient storage available to collect and contain silage effluent? - Are silage bales stored in at least 10 metres from watercourses and drains?	Managing Steading Drainage and Rural Sustainable Drainage Systems
	Is there a risk that run-off from silage bale storage area could enter a watercourse?	
Fertiliser storage	- Is the fertiliser storage area within 10 metres of a watercourse or otherwise pose a risk to the water environment? - Are liquid fertiliser tanks positioned and protected to minimise risk from accidental damage	
Oil storage	- Are the fuel tanks adequately bunded? - Are there any watercourses or drains nearby?	

[Diffuse pollution steering assessment map](#)

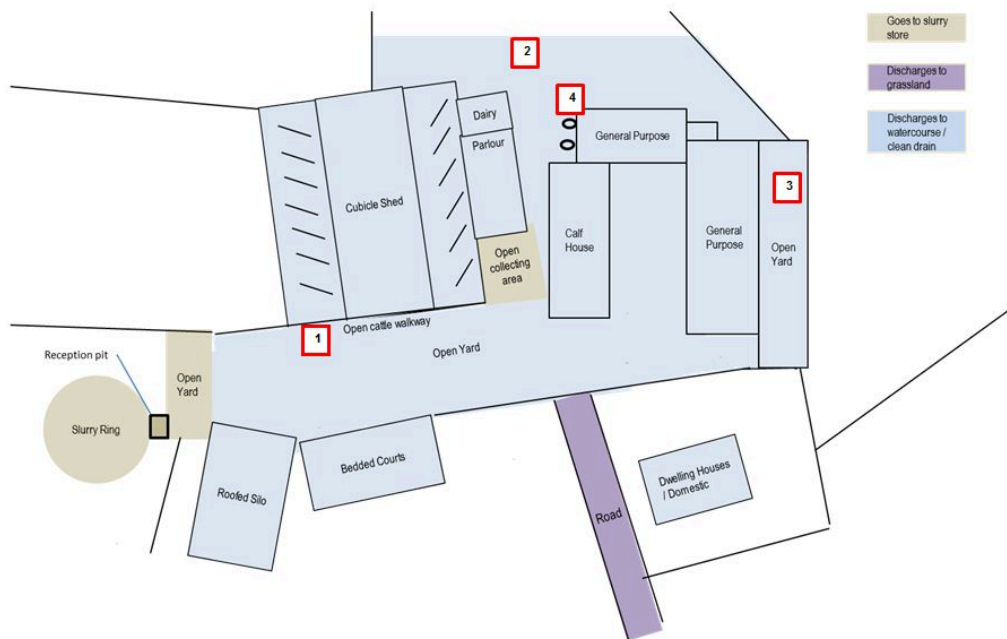
Using an appropriately scaled map of the steading, identify areas which produce:

- clean roof run-off and lightly contaminated yard run-off that currently discharges to a watercourse or clean water drain
- run-off that discharges to grassland
- midden run-off and run-off from open silos and indicate where the drainage goes
- dirty yards and run-off from silos and other drainage that discharges to the slurry or effluent store

Further information on identifying drainage types can be found within the guidance for the option – [Managing Steading Drainage and Rural Sustainable Drainage Systems](#).

The map will help to identify areas of the farm where steps could be taken to help reduce the volumes of dirty water produced and reduce pollution risks.

Below is an example of how your map may look.



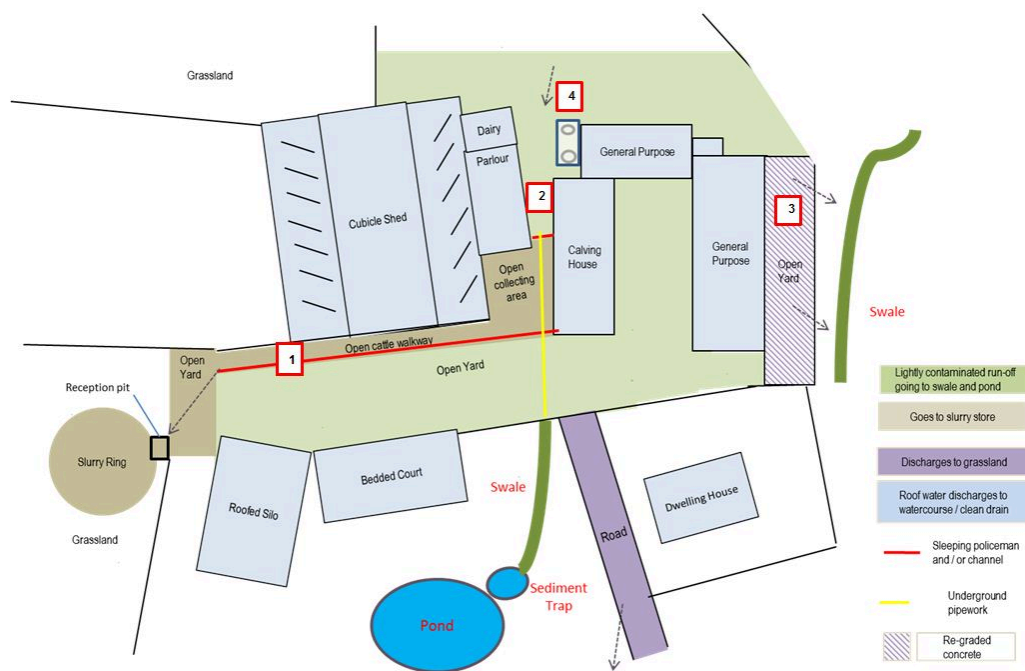
Opportunities for improvement

Produce a list of any diffuse pollution risks identified and what improvement could be made to reduce diffuse pollution risks, see example table below:

Number on map	Diffuse pollution risk / opportunity	Action or option
1	Cattle walkway discharging to clean drain	Use clean and dirty water separation methods to prevent the slurry produced on the walkway from contaminating the clean yard below. Channel the slurry from the walkway to the slurry storage facility
2	Lightly contaminated yard discharging direct to clean drain	Opportunity to intercept this lightly contaminated drainage and discharge to Rural SuDS swale and pond
3	Lightly contaminated yard discharging direct to clean drain	Opportunity to re-grade this clean concrete yard area to allow the run-off to discharge to a swale and local grassland
4	Fuel store not bunded	Bund fuel store

Diffuse pollution steering management map

On another map of the steading identify what works are proposed to take place to help improve the management of steading drainage and the location of any rural sustainable drainage systems.



Number on map	Action proposed	Option selected
1	A sleeping policeman / ramp and a channel will be installed along the length of the cattle walkway to contain and collect the drainage from this area. The sleeping policeman / ramp will prevent the run-off from the walkway contaminating the clean yard below. The channel will collect the run-off and convey it to the slurry storage facilities.	Managing Steading Drainage and Rural Sustainable Drainage Systems
2	This clean yard area currently discharges direct to a watercourse via an existing clean water drain. A sleeping policeman / ramp will be installed to prevent the lightly contaminated run-off from the top yard flowing through the heavily contaminated collecting area. The lightly contaminated drainage from the top yard will then be collected and conveyed via a new gully and underground pipework to a new rural sustainable drainage system at the bottom of the yard	Managing Steading Drainage and Rural Sustainable Drainage Systems
3	This lightly contaminated concrete yard area which currently discharges to a field drain will be re-graded to allow the run-off to flow to local grassland	Managing Steading Drainage and Rural Sustainable Drainage Systems RSuDS Swale RSuDS Sediment Trap RSuDS Pond
4	Bund fuel store	n/a

Diffuse pollution steering management – example table


[Diffuse pollution steering management table \(PDF, Size: 33.5 kB\)](#)

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Recent changes

Section	Change
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whole page	various changes in text
Field map	Change or text from 'can' to 'must' concerning individually numbering points on the map.

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