



Llywodraeth Cymru
Welsh Government

Groundwater protection
codes for Wales

Sheep dip

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1. Introduction

Groundwater lies below the surface of the ground. If you carelessly use or release toxic sheep dip on your land it could pollute groundwater. Polluted groundwater can drain into and contaminate drinking water sources such as boreholes, wells, springs and streams.

By following this code of practice you can reduce the risk of causing groundwater pollution.

You could be imprisoned and subject to an unlimited fine if you:

- spread waste dip to land without an environmental permit
- allow hazardous substances to enter groundwater
- spread non-hazardous pollutants (e.g. from purl or bloom dips)

By using this code you will be able to show that you have taken steps to avoid pollution and are complying with your legal requirements under the Environmental Permitting (England and Wales) Regulations, 2016. You must also follow applicable guidance and laws like the health and safety regulations.

Natural Resources Wales would look at whether you followed or are likely to follow the code when deciding whether to serve a notice on you under the Environmental Permitting (England and Wales) Regulations, 2016. Such notices can include the requirement for you to get a permit, or to stop your use or storage of sheep dip on site. Failure to comply with a notice is also a criminal offence.

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2. Get a certificate of competency

You must get a **certificate of competency**¹ to buy sheep dip or carry out dipping. You'll take a computer-based test, and there's an optional practical test. You could be imprisoned and fined up to £5,000 if you dip sheep without a certificate of competency.

Without the certificate you can help someone else, who must have the certificate, with dipping, but you can't do it on your own or buy the dip.

3. Get an environmental permit

You must apply for an **environmental permit**² if you plan to discharge waste sheep dip on to the ground, e.g. by landspreading.

It can take up to 4 months to get your permit.

If you intend to treat organophosphate dip yourself with a degrading enzyme, you'll need to get **waste exemption T27**³ in addition to your environmental permit.

4. Before you dip sheep

You need to prepare properly if you want to reduce the pollution risk to groundwater • e.g. choosing the right location and equipment.

Choose a safe location

Dip baths, drain pens or mobile dipping systems should be at least:

- 10m from watercourses (e.g. streams) and wetlands - further away if possible
- 50m from any well, spring or borehole
- 30m from a watercourse that drain into a river or wetland designated as a European site or a site of special scientific interest (SSSI)

¹ <https://www.nptc.org.uk/qualificationschemedetail.aspx?id=267>

² <https://naturalresources.wales/permits-and-permissions/?lang=en>

³ <https://naturalresources.wales/permits-and-permissions/?lang=en>

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Avoid sites in a flood plain and with a high water table.

You must contact Natural Resources Wales if you plan to carry out dipping on land that's part of a protected site.

You shouldn't use dip baths or drains pens on roads or tracks, or on a slope that drains directly towards a watercourse.

Use the right equipment

Make sure your dip bath:

- doesn't have damage or drain holes that could cause leakage
- won't allow splashes to escape – fit splash screens and lips if necessary
- is circular or rectangular and ideally of one-piece construction to reduce the risk of leaks
- is UV resistant, if made of plastic

Your drain pen should have:

- enough space to hold the batch of sheep being dipped for at least 10 minutes after dipping
- properly sealed floors and built-in slopes to allow excess dip to drain back to the bath, not soaking into the ground, soil or into a surface water drain
- a cover or roof to stop rainwater etc. running into it
- a filter or trap arrangement to stop dirt draining back into the bath along with dip

The hosepipe you use to fill the bath should be:

- positioned so that its end can't be submerged in the dip bath, to avoid pollution of the water supply due to back-siphoning of dip
- have a double check valve so that dip isn't back-siphoned
- only used for sheep dipping never for domestic water supply

Make sure your facilities comply with **British Standard 5502⁴**

⁴ <http://shop.bsigroup.com/ProductDetail/?pid=000000000030262061>

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Buy and transport dip concentrate

Only buy:

- dip concentrate authorised by the [Veterinary Medicines Directorate](#)⁵
- as much as you need for each dipping season, so you don't have to store it for long periods, which increases the risk of leaks and pollution

When transporting dip concentrate make sure:

- containers are secure and can't be punctured
- partly used containers are closed securely and kept upright to prevent spills
- any trays are large enough to hold spills

Store dip concentrate

Store concentrate in its original container, which should be clearly labelled. Keep containers away from drains, in a secure tray or bund, to contain any spills.

Store containers in either:

- [properly constructed farm chemical storage](#)⁶
- [an approved metal cabinet that meets the requirements of the Health and Safety Executive's guidance](#)⁷ on storing pesticides for farmers

Your store must be locked when not in use.

If there are spills during storage, you should either:

- pour them into the dip bath
- soak them up with absorbent material, in which case you must get a [registered waste carrier](#)⁸ to dispose of the material and dip

⁵ <http://www.vmd.defra.gov.uk/ProductInformationDatabase/Default.aspx>

⁶ <http://www.hse.gov.uk/pubns/ais16.pdf>

⁷ <http://www.hse.gov.uk/pubns/ais16.pdf>

⁸ <https://naturalresources.wales/permits-and-permissions/?lang=en>

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You also need to be able to store the “absorbed material” in a secure and safe manner to prevent the dip leaching and potentially polluting groundwater or surface waters.

You shouldn’t pour spills back into the container as this could contaminate your dip. You must not pour spilt dip into drains, watercourses or onto the ground.

5. When dipping sheep

You must take care when you’re jetting, spraying, showering and dipping sheep in either a static bath or mobile system. Most pollution happens during or just after dipping.

Don’t dip sheep if you expect rain within 24 hours unless you have a ventilated shelter for your flock. Rain can wash off dip that hasn’t had time to dry

Check the site

Check areas where you plan to dip sheep. Look for ways to reduce the risk of contamination, e.g. from drain down areas, where you keep sheep after dipping, that don’t connect back to the dip bath.

You should also consider the potential impact of animal behaviour after dipping. For example, make sure there is drinking water available so that sheep don’t rush to nearby streams where dip could be washed off and cause pollution.

Check the bath for leaks

- Check the empty bath for leaks. Permanently seal any drain holes if you have an older model of bath.
- Fill the bath with clean water and leave it overnight, making sure rain can’t enter it and affect the water level.
- Check the water level the following day. If it’s unchanged, you can add the dip concentrate.
- If the water level has fallen, find any leaks and permanently seal them.
- Repeat this procedure to make sure the leaks are sealed.

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Fill the bath

You should take care to avoid polluting groundwater or surface water when you're filling the dip bath. Pollution could happen if you:

- allow dip to overflow from the bath or use the bath in the wrong place
- wash out the measuring jug carelessly
- leave dip concentrate in insecure containers

Fill the dip bath in the following way:

- Fill the bath with clean water before you add the dip concentrate, taking care not to overfill it. Use a water meter or a container of known volume to fill it so you're sure of the precise volume of the bath and how much dip concentrate to add.
- Pour and mix the concentrate within the dip area so any accidental spills are contained.
- Close the dip container after you've finished using it and store it in a flat-bottom vessel or tray.
- Wash out any jugs or measures you've used to pour the concentrate. Wash them over the bath 3 times with clean water (don't use water from a stream).
- Store any containers needed to top up the bath in a drip tray and place them where they won't be knocked over.

Keep run-off in the bath

You must make sure all run-off stays inside the dip bath during and after dipping. Take the following measures:

- wash protective clothing and footwear before you leave the dipping pen, making sure all contaminated water drains to the bath
- make sure all sheep are rested beforehand and take care when you put them in the bath to prevent splashes

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Transfer the sheep to the drain pen

After dipping the sheep:

- keep them in the drain pen until there are no signs of dip solution dripping from their fleeces (this may take 10 minutes or more) – use double drain pens if needed
- keep the filter or trap clear during dipping and dispose of any waste material along with the waste dip

Anyone carrying out dipping (including contractors) should remember that the drain pen sides and splash boards will be contaminated with dip solution.

Using mobile dips safely

There is greater risk of polluting groundwater from a mobile dip system than from a static dip. Check all equipment thoroughly before use for signs of damage, corrosion or excessive wear, and to make sure it's working properly.

Before using a mobile dip system you should establish whether you or the mobile dipping contractor will dispose of the waste dip. Make sure any contractor who disposes of dip has a **waste carrier licence**⁹ as well as any **environmental permits**¹⁰ for your own activities.

You could be prosecuted for 'knowingly permitting' the landspreading of waste sheep dip (i.e. a groundwater activity) if your contractor illegally disposes the dip. You must have a permit if the sheep are dipped by a contractor and the waste dip is then spread on your farmland.

If you're using a mobile system in a farmyard make sure:

- all drains are sealed
- you collect any drainage from sheep leaving the system in the way you would for a static dip bath
- collection systems are designed and constructed to collect all waste sheep dip

⁹ <https://naturalresources.wales/permits-and-permissions/?lang=en>

¹⁰ <https://naturalresources.wales/permits-and-permissions/?lang=en>

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If you're using a mobile system in a field make sure:

- there are no wells, springs or boreholes used for any purpose within 50 metres
- there are no watercourses or drains within 10 metres
- there's no groundwater within 1 metre of the ground surface

Make sure that fields:

- are flat or gently sloping and have well-established grassland or rough grazing cover
- have at least a spade's depth of top-soil and preferably a further 0.5 metre depth of soil
- are free from flooding, surface ponding and waterlogging
- aren't frozen or compacted
- can hold enough drain pens to contain sheep until their fleeces are completely dry after dipping – if needed, you can move drain pens to stop fields becoming sodden with sheep dip

You shouldn't move a mobile system containing dip unless it's designed to be moved. However, you may need to move your system to prevent poaching (compacting of the soils and vegetation by trampling and leading to pollution run-off problems). You should do this if poaching removes more than half the vegetation within the holding areas.

You should also place protective mats or absorbent material across exit ramps to help reduce poaching.

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6. After dipping sheep

After you've finished dipping sheep you should release them from the drain pen to a holding area. Make sure:

- their fleeces aren't dripping wet when they leave the drain pen
- the holding area doesn't contain any wells, springs, watercourses, ditches or wetlands
- you provide the sheep with drinking water in troughs or another form so they don't run to the nearest water source
- you keep the sheep in the holding area until they're completely dry

If you take the sheep to a field for holding, keep them away from watercourses or ditches when transporting them.

Don't transport sheep if they're wet, unless the vehicle or trailer you're using contains enough absorbent material to mop up all drips.

Wash out your vehicle or trailer afterwards and treat the washings in the same way as waste dip. Dispose of the absorbent material in the same way as any other contaminated waste, i.e. using a waste carrier.

Keep sheep away from watercourses and wetlands for as long as possible and ideally at least 2 weeks after dipping, as dip compound can still wash out of dry fleeces during this time.

Empty the dip bath

Empty the dip bath as soon as possible after dipping to reduce the risk of leaks or overflows due to rain.

- Wash down the bath as well as drain pens and any associated areas, with all the washings going into the dip bath.
- Remove the washings from the bath, e.g. by suction into a vacuum tanker.
- Clean any equipment you've used to empty the bath, as it will be contaminated.
- Cover the bath to prevent rain, people or animals from falling in when it's not being used.

Don't use any pipes you've used to empty a dip bath for water supply.

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Cover your dip bath when you're not using it. This will:

- stop rainfall into the bath which could dilute dip and cause the bath to overflow
- reduce the risk of people or animals falling into the bath
- protect the bath, e.g. from ultraviolet damage or vandalism

7. Handling waste dip

You must store, treat and dispose of waste dip carefully to avoid risk to groundwater.

Storing waste dip

You can store waste dip if you're unable to spread it straight away or if you need to treat it before disposing of it. Store waste dip:

- in impermeable containers designed to store toxic materials – not in a dip bath
- where spills won't enter drains or run over adjoining land – or make sure containers are bunded to contain spills

If you're storing large quantities of waste dip (used for more than one dipping operation), make sure your storage system complies with **British Standard 5502**¹¹

You could be served with a notice by Natural Resources Wales if your storage systems are a threat to groundwater, e.g. if you don't have a permit, you're not complying with a permit's conditions or there is a risk of leaks from your storage system due to its condition.

Rural Payments Wales carries out inspections as part of its **cross compliance assessment** duties¹². Natural Resources Wales also carries out its own inspections independently of Rural Payments Wales.

¹¹ <http://shop.bsigroup.com/ProductDetail/?pid=000000000030262061>

¹² <http://gov.wales/topics/environmentcountryside/farmingandcountryside/rpwwonline/?lang=en>

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Treating waste dip

You can break down waste sheep dip by mixing it with a chemical treatment and then leaving it for a specified time. This helps to reduce its polluting potential. Treat waste dip by:

- checking with Natural Resources Wales that your proposed treatment method is suitable
- following the manufacturer's instructions for the specific dip you've used
never treat dip using a method designed for another product
- making sure there's roof covering over the dip bath while the treatment is taking place

Disposing of waste dip

You must have an [environmental permit](#)¹³ to dispose of treated or untreated waste sheep dip to land.

You must comply with the conditions set out in the permit. The permit will usually allow you to spread the dip on the site where you carried out the dipping or a contractor to spread your waste dip on their site.

The permit generally allows the discharger (operator) to carefully spread the waste dip onto the land in a controlled manner. The site-specific risk assessment decides the permit conditions and will state what controls are needed.

If you plan to dispose of the dip away from the site, you must use a [registered waste carrier](#)¹⁴ it's your responsibility to check they have a valid licence and permit.

Your waste carrier can also take away:

- surplus sheep dip concentrate
- dip that has passed its expiry date
- empty containers, if you can't return them to the manufacturer

¹³ <https://naturalresources.wales/permits-and-permissions/?lang=en>

¹⁴ <https://naturalresources.wales/permits-and-permissions/?lang=en>

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Spreading waste dip

Before spreading waste dip, make sure the land:

- isn't waterlogged or frozen
- isn't cracked following dry weather
- doesn't contain recently laid or backfilled land drains

If spreading conditions are unsuitable, store the waste dip until they improve.

You can mix the waste dip with slurry or water in a vacuum tanker to achieve the correct spreading rate, as stated in your environmental permit. The usual dilution rate is 1 part waste dip to 3 parts water or slurry.

If you use water:

- add it to the tanker before the dip
- don't take it directly from a water source (e.g. a supply tap or stream) using potentially contaminated equipment

Don't mix the waste dip directly with the contents of a slurry store, because you'd have to treat all the slurry as contaminated waste and get a permit to dispose of it.

Check the conditions of your permit. It's likely to allow the disposal of sheep dip by:

- you, the permit holder
- your staff, with your permission
- a contractor treating your sheep

Make sure that you or others disposing of dip comply with all the conditions of your permit, e.g. using suitable equipment.

If your contractor plans to remove waste dip for disposal off-site, you must check:

- where they'll ultimately dispose of the dip
- that your contractor has a permit to dispose of waste dip
- that your contractor is a **registered waste carrier**¹⁵

¹⁵ <https://naturalresources.wales/permits-and-permissions/?lang=en>

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Before you use a contractor, agree on who will be responsible for the safe disposal of waste dip.

Disposing of containers

Never reuse containers that have held sheep dip concentrate.

- Rinse containers 3 times with clean water when the dip is being prepared so that the rinsing liquid dilutes the dip.
- Crush the containers so they can't be used again.
- Take the containers to registered disposal sites or ask your local authority to collect them (you may have to pay).
- Store surplus concentrate safely for future use or ask a registered waste disposal operator to take it. You may be able to return unopened containers to your supplier.

7. Keeping records

You should keep a record of your sheep dipping operations. Include details of:

- when the dipping took place
- where it took place
- the dip product you used
- the supplier of the dip
- the animals you treated

This will be useful evidence if there is a pollution incident and will let you observe any withdrawal periods (where sheep can't be sent for slaughter due to potential presence of residual sheep dip which is toxic) for sheep going for slaughter.

You must keep records of your disposal of sheep dip to comply with your permit, including the types and volumes of substances you disposed of, and the dates and locations.

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9. Emergencies

If there's a risk that groundwater has been polluted you must contact **Natural Resources Wales¹⁶** to report an environmental incident. Call them on **0300 065 3000**

If there's a small, contained spill, you might not need to report it, as you may be able to avoid pollution yourself.

Spills during transport

- Contain spills within the vehicle and prevent any further leaks.
- Soak up the spills with absorbent material, such as sawdust or sand, then wash out the vehicle as soon as possible.
- Dispose of contaminated absorbent material and any wash water – never wash it down a drain.
- If a spill leaks outside the containment area, there's potential risk of water pollution and you must report the **spill immediately¹⁶**.

Spills during mixing or dipping

- Soak up spillage with absorbent material, then wash down the area. Drain washings into the dip bath.
- Dispose of absorbent material as contaminated waste
- If sheep escape from a holding area and get into a wetland or watercourse before the dip has dried, retrieve them immediately and tell Natural Resources Wales.

You can also contact **Natural Resources Wales¹⁷** if you need more advice on how to protect groundwater.

¹⁶ <https://naturalresources.wales/about-us/contact-us/report-an-incident/?lang=en>

¹⁷ <https://naturalresources.wales/about-us/contact-us?lang=en>