

Flood recovery advice for the agriculture sector

January 2014

Introduction

This briefing provides advice to farmers, landowner and tenants on recovery following coastal and inland flooding. Our main advice is:

- Ensure you have a flood plan and are prepared for flooding.
- Please talk to us about the environmental impacts of your recovery operations. You can contact our National Customer Contact Centre on 03708 506 506 to discuss any environmental permits or consents you may require.
- Where possible, we will repond positively to requests to help you remediate/restore land after flooding. However, we must also take account of the impacts this may have on the environment and others, especially if the recovery will take some time.
- Material deposited on fields following the floods is likely to be considered waste.
- Land spreading elsewhere should be done under a waste exemption or permit and deployment authorisation.
- The material is a waste if removed for composting or anaerobic digestion or other treatments and should be done under a waste exemption or permit.
- Burning in the open is restricted in quantities and waste types but can be done under a waste exemption; otherwise material must be removed to an authorised waste treatment or disposal facility.
- You should seek advice from the Animal Health and Veterinary Laboratories Agency (AHVLA) if you propose to dispose of animal carcasses on your farm. There is a ban on routine on-farm burial or open burning of carcasses or parts of carcasses. If AHVLA are in agreement, you will need to speak to your local Environment Agency office to ensure your proposed burial location is suitable. Our National Customer Contact Centre (phone 03708 506 506) can provide details for your local Environment Agency Office.

Further advice is also provided on the following issues:

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Draining of land and discharging water

It is important to consider your own safety and that of others before carrying out drainage works. There may be risks from further high tides or river flows to consider when determining the urgency of work to discharge flood inundation water.

Draining the land of water is principally the responsibility of the landowner. The following precautions must be taken during the removal of water:

- ensure that the receiving water course can cope with the discharge - a larger, flowing watercourse will be more resilient generally;
- ensure that fish do not become stranded;
- ensure that any potential sources of pollution do not accidentally get released to the receiving water, such as soil, slurry, sea water or other potentially polluting substances;
- take care not to make flooding worse elsewhere if a discharge could impact others.

As a general guide, where land has been inundated and would normally drain to a watercourse or the sea, then pumping to accelerate discharge should not result in any significant impact on the environment. We recommend that expert advice is sought before drainage operations are undertaken to ensure appropriate pollution prevention measures are in place. Please contact the Environment Agency (03708 506 506) if you have any concerns and would like to discuss prior to making a discharge.

Repair and restoration of defences & channels

Riparian landowners are responsible, under common law, for maintaining the bed and banks of any watercourses that run through their land in a state which avoids flooding on their neighbours' or other land. This common law duty also extends to keeping watercourses and culverts clear of anything that could cause an obstruction or blockage.

A Flood Defence Consent and an Environmental Permit may be required from us if a landowner or farmer wants to undertake watercourse maintenance including work on defences, desilting or dredging. These consents and permits are needed to protect the flood risk interests of upstream and downstream neighbours and the environment. We

recommend that landowners contact us before undertaking any work in the watercourse and we will be able to confirm whether consent is required. Please contact our National Customer Contact Centre on 03708 506 506 to discuss any Consents or Environmental Permits that you may require. Additional information on how to apply for a Flood Defence consent can be found [here](#).

Emergencies

Emergency works can proceed without Consent; however the Environment Agency and any other statutory consultees should be informed at the earliest opportunity and ideally prior to the works starting. Contact details are as given above.

The Environment Agency defines emergency works generally as those in response to an event that is unexpected *and* serious such that it presents a significant risk to human life, health and property or the natural environment *and* involves the need for immediate action to manage the risk. 'Significant risk' is not defined and should be assessed case by case.

Due to the poor ground conditions during a flood event it is likely to be inappropriate to undertake non emergency works and the normal Flood Defence Consent and Environmental Permit applications should be submitted. Works undertaken when ground conditions are poor run the risk of further damage to the watercourse, banks and the environment.

Blockage Removal

Where there has been a collapse of the river bank or other structure that is forming an obstruction and a significant risk as described above then this can be removed without consent. For example the removal of a tree, masonry or section of earth river bank. Works would be restricted to the removal of the obstruction only. The reinstatement of the riverbank or failed structure would require Flood Defence consent as normal.

Works to Flood Defences

Emergency works to defence walls and embankments should be confined to ensuring structural stability and to raising any localised low spots during or in advance of an imminent flood.

General maintenance or repair that does not alter the dimensions of the structure or its alignment will require Flood Defence consent; however, land owners may already have these in place as part of their maintenance agreement. Where consent is in place no further notification is required.

Where the consent is not in place or the required works go beyond the specification above a formal consent will be required for the work. For example, the general raising of the height of defence structures should not be undertaken without prior consent.

Internal Drainage Boards

The Environment Agency has permissive powers to carry out flood and coastal risk management work and to regulate the actions of others on main rivers and the coast. Local Authorities have powers to carry out work on other watercourses and coastal erosion

protection assets, except for watercourses within Internal Drainage Board Districts, and public sewers. These are the responsibilities of the Internal Drainage Boards (IDBs) and the water companies respectively.

Where flooding, or damage to watercourses has occurred within an Internal Drainage Board (IDB) area we recommend that farmers contact their IDB as they may be able to offer expertise and assistance http://www.ada.org.uk/idb_members_map.html.

Remediation of land and soils

The NFU have advised us that the length of time salt water is over the land is critical, along with the general infiltration; the primary action is to facilitate the removal of sea water from the land wherever possible (see 'Draining of land and discharging water' above).

Prior to any soil treatment, you must seek specialist agronomist advice to work out the optimum choices for the soils. It is vital that the benefits and implications of washing / diluting saline water, and any treatment with additives (such as gypsum) are first understood. Agronomists will be able to advise you on the best treatment while preventing pollution, on ensuring nutrients are held, and that regulatory requirements complied with. When abstracting groundwater be careful to ensure saline water is not introduced.

Any soil treatment involving the spreading of waste (such as plasterboard derived gypsum) is likely to be subject to Environmental Permitting Regulation controls. Advice can be sought from the Environment Agency (03708 506 506) and further information can be found on our website at <http://www.environment-agency.gov.uk/business/sectors/130181.aspx>. The [NFU's Tidal Surge briefing \(for NFU members only\)](#) also provides a comprehensive overview of requirements and considerations.

To abstract surface water or groundwater you require an abstraction licence; contact the Environment Agency (03708 506 506) to discuss your requirements and if activities proposed are outside a current licence. Our staff will take a 'yes, if' approach to any requests, recognising the difficult situation farmers face. However, we still have to take account of the impacts this may have on the environment and others, especially if the recovery will take some time.

Contamination of irrigation supplies

There is a potential for salt water to mix with groundwater, contaminate shallow wells, enter irrigation ponds, or storage reservoirs, and subsequently contaminate irrigation water sources. Saline ingress to freshwater will result in lower quality water for abstraction. It is important to consider these risks before abstracting to fill winter storage reservoirs. If you need to find an alternative source of water, consider talking to other abstractors nearby about using their source if it is not contaminated. The Environment Agency can advise you on the licence requirements of any water trade.

Debris washed onto farmland

You may need to remove material deposited on fields following the floods for re-use or disposal. It is likely that such material will be considered waste and therefore can only be spread to land either under a waste exemption or permit and deployment authorisation. Waste exemptions are free to register. Further information can be found on our website at <http://www.environment-agency.gov.uk/business/sectors/130181.aspx>. Your local authority may provide help in removing large quantities of waste in exceptional circumstances.

Clean stone and gravels

Where clean stone and gravel can be used beneficially without treatment within the catchment from which they originated (for example, for track, path or road repair) these will not be viewed as a waste and therefore waste transfer notes and Duty of Care legislation will not apply.

Where materials are taken out of the catchment or require treatment (such as crushing) then they are viewed as waste and the usual Duty of Care requirements will apply. This includes the use of transfer notes, registered waste carriers and exemptions or permits for the treatment or disposal. Where treatment (such as crushing) takes place within the catchment, a waste exemption will need to be registered and complied with. Private individuals carrying out these activities on their private land do not need to register the exemption but they must comply.

Landowners can:

- Stockpile gravels in a field for possible re-use on the farm or private land where they have been deposited.
- Remove the gravels and use them off the farm (but within the catchment) following discussions with our Area office or recovery group if one is set up.

Should any work involving river works or bank repairs be required, then a flood defence consent may be required. Contact the Environment Agency (03708 506506) to discuss your requirements. If there are any items in the river such as vehicles, silage bales and so on, the landowner should contact their local Environment Agency office for further advice.

Other waste debris

A large range of waste material may be deposited by floods. Options for disposal include:

- Collection of smaller items, where possible bagged or placed in a container, stored in a secure location for collection either by the local authority or a private contractor.
- Larger items stored in a secure location for collection either by the local authority or a private contractor.

If waste is to be removed from fields and disposed of by landowners then they have a Duty of Care to ensure that the waste is disposed of at a properly authorised site.

Wood

Virgin timber are not waste and are not subject to waste regulatory controls provided they are certain to be used for purposes to which virgin wood is commonly put. Further advice can be found in the Environment Agency Position Statement on the environmental regulation of wood at http://www.environment-agency.gov.uk/static/documents/Research/PS_005_Regulation_of_wood_v3.0.pdf.

Untreated wood wastes can be burnt in the open under an exemption – for further information go to: <http://www.environment-agency.gov.uk/business/topics/permitting/116165.aspx>

Waste exemptions

Many agricultural sites have already registered waste exemptions but if not then they can do so by going on-line at www.environment-agency.gov.uk/farmexemptions or ringing our Agricultural waste registration line on 0845 603 3113. Non-agricultural premises can register at www.environment-agency.gov.uk/exemptions or ringing 03708 506 506. Registration is free and the exemption lasts for three years.

By registering, operators are confirming that they:

- have read and understood the limits and conditions that allow them to operate without a permit;
- are carrying out their waste operation in accordance with those limits and conditions;
- are not posing a risk to water, air, soil, plants or endangering human health; and
- are not causing a nuisance through for example noise or odours.

Disposal of spoilt crops

Spoilt crops can be ploughed back into the fields where they are being grown. These will not be regarded as a waste. If the spoilt crops are removed for treatment, it is a waste. Environmental Permitting Regulation controls will apply to their disposal (such as by spreading to land elsewhere) or treatment (such as via a composting or anaerobic digestion process). Disposal or treatment must take place under either a waste exemption or permit.

Landspreading activities

Access to land may continue to be a problem where it is saturated. Spreading onto waterlogged land will lead to soil damage and compaction, and cause pollution. It can also put you at risk of breaching the law and your Cross Compliance responsibilities. You should have sufficient storage on your farm to cope with typical UK weather conditions, which will include prolonged wet weather and occasional flooding. You are also advised to have contingency plans in place to cope with exceptional conditions, such as the use of temporary stores. Advice on temporary slurry storage is provided in [Annex A](#).

You must not accept off-farm materials for spreading on your land if spreading conditions are not suitable or where you are struggling to manage your own slurry.

If the situation arises that you cannot avoid spreading in such conditions, you should contact your local Environment Agency office to discuss your short-term options to minimise the risk of causing pollution, and your longer term options to prevent the situation recurring.

If you require advice talk to your farm advisor, local Environment Agency contact (03708 506 506), the Farming Advice Service (0845 345 1302) or, where applicable, the Catchment Sensitive Farming team. You can also find information on storage in 'Think Manures', available from <http://www.nutrientmanagement.org/>

Disposal of carcasses

Where a carcass is found on private land, wherever possible the owner of the carcass should be identified and is responsible for the collection and disposal. If ownership cannot be proven then responsibility for disposal rests with the landowner. Where a carcass is deposited elsewhere including public land or highways and ownership of the carcass cannot be ascertained, then the local authority is responsible for the disposal. We will remove a carcass from a watercourse but only if there is a pollution or flood risk and the carcass owner or landowner cannot be identified.

The disposal of animal carcasses (excluding wild animals) is controlled by the Animal By-products Regulations (ABPR). The competent authorities for these regulations are the Animal Health and Veterinary Laboratories Agency and the local authority (generally Trading Standards). The ABPR imposes a ban on the routine on-farm burial or open burning of carcasses or parts of carcasses. However, there are a limited number of exceptions to this ban, which are only given in exceptional circumstances.

Exceptions include fallen stock located in certain 'remote areas', emergency disease control, and where access is not practical due to a geographical or climatic reason, or due to a natural disaster. Further information can be found on the following websites:

<https://www.gov.uk/fallen-stock#exceptions-to-the-ban-on-https://www.gov.uk/fallen-stock> and <http://www.nfsco.co.uk/Fallen-Stock-Guidelines-in-the-event-of-severe-weather-and-natural-disasters.html>.

In the case of burial, we may require the activity to be carried out in accordance with an Environmental Permit for the protection of groundwater. However there are circumstances when a permit will not be required. This will be decided on a case by case basis, and will depend on the size of the burial and the environmental sensitivity of the location.

Disposal of milk

If flooding prevents road tankers from collecting your milk, you may need to dispose of it onto land. This can be done under a waste exemption, though the exemption would not be valid if spreading onto waterlogged soil. We would not take any enforcement action for a breach of an exemption provided that:

- you have made use of any temporary storage options available to you;
- you have feed the milk back to livestock as far as possible;
- you spread at low rates (no more than 30cu m/ha) onto the land which presents the lowest risk of pollution.

Planning for flooding

- **You can check your flood risk on our website.** You can check the risk of flooding from rivers, sea, and surface water on our website here: <http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=floodmap#x=357683&y=355134&scale=2>
- **You can sign up to receive flood warnings.** Floodline Warnings Direct is our free service that provides flood warnings by phone, text or email. You can register for free on our website here: <https://fwd.environment-agency.gov.uk/app/olr/register>
- **You can prepare a flood plan for your business.** Preparing and putting in place a flood plan is the most important thing you can do to prepare your business for flooding. Please note: You should review and update your plan annually.
- The plan should include:
 1. a list of important contacts, including Floodline 0845 988 1188, building services, suppliers and evacuation contacts for staff
 2. a description or map showing locations of key property, protective materials and service shut-off points
 3. basic strategies for protecting property, preventing business disruption and assisting recovery
 4. checklists of procedures that can be quickly accessed by staff during a flood
- **You can prepare your property for flooding.** It's impossible to completely flood-proof a property but there are lots of things you can do to reduce flood damage. Check out what action you can take on our website here: <http://www.environment-agency.gov.uk/homeandleisure/floods/31644.aspx>

Annex A

Advice to farmers - Temporary slurry storage

Introduction

If you are considering providing temporary additional storage to manage your livestock slurry through this winter, this note gives advice on the requirements and some of the practicalities. Short term extra storage may be provided on a farm or group of farms. Options would include:

- re-using existing tanks or lagoons, including tanks reclaimed from elsewhere;
- installing new tanks or lagoons;
- reinstating disused stores on farms that are no longer used for farming purposes.

Regulatory matters

- Check with the Local Planning Authority for any planning requirements, making clear that this is a temporary arrangement.
- For temporary installations the Environment Agency will consider reduced requirements for silage, slurry and agricultural fuel oil (SSAFO) compliance, as described in the guidance below.
- You must de-commission all temporary facilities as soon as the current difficulties are resolved.
- If you intend to retain the store for long term use it must be re-assessed for full SSAFO approval and planning approval (if that is appropriate).
- You must protect the H&S of all users. [HSE sheet AIS9](#) provides advice on safety fencing.

Practical matters

- If you are going to need new or additional permanent storage, then you need to plan carefully to avoid wasting money.
- We anticipate that earth bank lagoons, lined lagoons or possibly slurry bags will be the most likely installations in the current circumstances.
- For shared facilities:
 - you will need to consider any risks to bio-security;
 - the management arrangements and where the ultimate responsibility lies must be agreed between the parties and written down;
 - Farming organisations may be able to help to broker shared facilities.

Guidance

(Based on Environment Agency Operational Instruction 395_07)

See <http://www.environment-agency.gov.uk/business/sectors/118798.aspx>

Legal position

Facilities that store slurry from livestock yards or buildings must normally comply with the SSAFO Regulations¹. However, the full requirements will be waived for stores that will be used for less than twelve months. Temporary stores are expected to meet the requirements set out below.

Requirements

- The Environment Agency must be notified before construction.
- Temporary storage must only be considered where existing facilities are inadequate.
- Each individual location must be agreed with us (although generic designs may be used).
- Tanks and slurry bags must be installed to manufacturer's instructions.
- The base of earth bank lagoons must be above the water table – it is recommended that there is at least one metre of clay subsoil beneath the proposed base.
- A trial pit is required to confirm the required one metre clay layer; the resulting hole must be backfilled and puddled in.
- Liners must be used where there is any doubt about earth bank permeability.
- Low grade liners should suffice for temporary storage (provided the site is not a high groundwater risk area). Use higher grade liners for high risk areas. (See also 'permeability and liners' below.)
- Careful initial monitoring must confirm the integrity of the store.
- Site stores at least 10 metres from watercourses and land drains, and 50 metres from groundwater sources. Temporary trial trenches are recommended if there is any doubt about the presence of land drains.

Permeability and liners

If you are uncertain about the suitability of your soil, you can assess it using a jar settlement test or hand texturing, reproduced below.

There are a wide range of liners available for lining storage lagoons. Plastic liners such as polythene or PVC are widely available and generally cheaper than the butyl rubber alternatives.

The thickness of liner used needs to be appropriate to the particular on-site conditions (site sensitivity, soil porosity and so on). Construction Industry Research and Information Association (CIRIA) recommend a minimum of 1.5 millimetre thickness for liners, but this is for liners expected to perform for several years. Liner thicknesses in the range of 0.5 to 1.0 millimetre thickness should be suitable in most cases.

Where sheets have to be joined to cover a large area, the supplier can advise on minimum thickness and methods to ensure that joints are properly sealed. Thin liners are more susceptible to puncturing, so they must be laid on top of approximately 50 millimetres of sand, or a geotextile membrane. Take extra care during installation of thinner liners. Treat soil with weed killer prior to installation to prevent puncturing from below.

¹ Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010

Above ground storage

Where possible, avoid filling earth bank stores above the original ground level to avoid pressure on low engineered walls. Where filling must be above ground, the design must maintain 750 millimetres freeboard from the top of the walls.

Soil clay content tests

from Mason, P A (1992) Farm waste storage: guidelines for construction, R126, CIRIA, London (ISBN: 978-0-86017-352-6). Go to: www.ciria.org

Box 35 Initial assessment of soil clay content: settlement test

