# Supporting guidance for Slurry Storage

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### Introduction

This item provides a contribution towards the costs of increasing the slurry storage capacity on your farm. This includes a contribution towards the costs of building the store itself and also the necessary ancillary fittings and assemblies, reception tank and transfer pumps where relevant. Note that grant aid is not available for slatted tanks.

### **Benefits**

Ensuring that your farm has sufficient slurry storage capacity offers numerous benefits for the environment:

- having the capacity to store the slurry produced over the housing period will allow the slurry to be spread at the optimal time to meet crop / grass requirements when nutrient uptake will be higher. This reduces the risk of nitrates leaching to surface and ground waters
- making the best use of the nutrients within the slurry will reduce the requirement for additional bagged fertiliser to be applied thus reducing the farms over all carbon footprint
- timing applications to meet crop requirements will reduce the loss of nitrates and other pollutants to local watercourses and groundwater, and decrease nitrous oxide emissions (a particularly potent greenhouse gas) from the land to the air
- sufficient storage will also provide a level of resilience to deal with exceptional weather events such as prolonged wet weather when the risk of slurry run-off or causing damage to the soil are high

# What your application should include?

#### **Steading Drainage Assessment Plan**

Refer to Annex 1 for guidance on the production of a plan.

#### **Manure and Slurry Management Plan**

A Manure and Slurry Management Plan should highlight the volume of slurry produced on the farm and compare this to the current slurry storage capacity. This should identify the additional storage capacity that is required in order to provide six months slurry storage. It is important that the plan also identifies any actions that are required to minimise the production of dirty water through effective separation of clean and dirty water sources.

Guidance on the production of a Manure and Slurry Management Plan can be found in Annex 2.

### What needs to be done

Once it has been established how much extra slurry storage is required (or if an existing store built pre-1991 is to be replaced), thought should be given to the type of slurry storage facility to be created and how it will fit within the current slurry storage facilities.

This item will provide a fixed contribution towards the costs of providing extra storage and this will be at the same rate for all types of above- or below-ground slurry stores.

Irrespective of the type of storage facility to be constructed it is important that it is correctly designed and constructed and that the Scottish Environment Protection Agency is notified at least 30 days prior to construction commencing.

#### **Design standards**

New or substantially enlarged slurry stores must meet the requirements of The Water Environment (Controlled Activities)(Scotland) Amendment Regulations 2021, referred to as the Regulations elsewhere in this text.

To meet the requirements of the Regulations, a suitable liner must be installed when constructing a slurry lagoon. It is important that the chosen liner is of sufficient integrity and installed in such a way as to minimise any risk of leaks or ruptures during the life of the lagoon. NB the Regulations require that slurry structures are built with a minimum 20 year design life with maintenance.

Certain activities such as filling, mixing and emptying can, over time, cause significant wear and tear to the liner causing it to fail, particularly where these activities occur in the same part of the lagoon. For some types of liner this will involve installing extra protection, such as concreting the lagoon floor and wall in these areas, to reinforce the liner and meet the requirements of the Regulations.

The liners noted below should comply with the Regulations providing they are installed correctly and with the appropriate additional protection noted above where required:

- An HDPE liner of 2mm minimum thickness along with a geotextile underlay where there is a risk
  of rupture due to presence of sharp stones, tree roots or other sharp objects. Extra protection at
  mixing, filling and discharge points is recommended but not always necessary for HDPE liners in
  order to meet SSAFO unless required by the engineer.
- An LLDPE liner, which should be at least 1.2mm minimum thick and always installed with a
  geotextile underlay and suitable protection at mixing, filling and discharge points
- PVC liners specifically designed for slurry storage should be at least 1mm thick and always
  installed with a suitable geotextile underlay and suitable protection at mixing, filling and discharge
  points
- Other liners that offer equivalent permeability and structural integrity may also be suitable providing they meet the standards required by the Regulations.

SEPA is aware that poor day-to-day management, lack of inspection and routine maintenance is resulting in liner failures, environmental pollution and significant additional cost to the land manager in terms of remediation. It is important that care is taken to avoid damage during use and that the liner is checked for damage at least annually when safe to do so.

A freeboard of at least 750mm must be maintained at all times on storage facilities such as lagoons where the walls are made of earth. On other structures, such as above ground slurry towers, a freeboard of 300mm must be maintained.

### • Scottish Environment Protection Agency approval

You must notify SEPA no later than 30 days prior to commencing the works. The notification must be accompanied by an engineering plan for the works to be carried out. It is advisable that plans are discussed with the SEPA at an early stage prior to the commencement of works. This will ensure that the proposed store will comply with the Regulations.

Contact details

### **Further information**

- The Prevention of Environmental Pollution From Agricultural Activity (PEPFAA) Code of Good Practice
- The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021
- Nitrate Vulnerable Zone Guidance
- Farming and Water Scotland Know the Rules Slurry and Manure Storage 2022

# <u>Annex 1 – guidance for Steading Drainage Assessment Plans</u>

| | Guidance for Steading Drainage Assessment Plans (MS Word, Size: 296.0 kB)

doc\_external\_url: https://www.ruralpayments.org/media/resources/Slurry-storage---Annex-1---Steading-Drainage-Assessment-Plan-guidance-2023.docx

# <u>Annex 2 – guidance for Manure Slurry Management Plans</u>

Guidance for Manure Slurry Management Plans (MS Word, Size: 71.9 kB)

doc\_external\_url: https://www.ruralpayments.org/media/resources/Slurry-storage-Annex-2-Manure-and-Slurry-Management-Planning--1--26-01-23-2--1----with-links--5-.docx

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