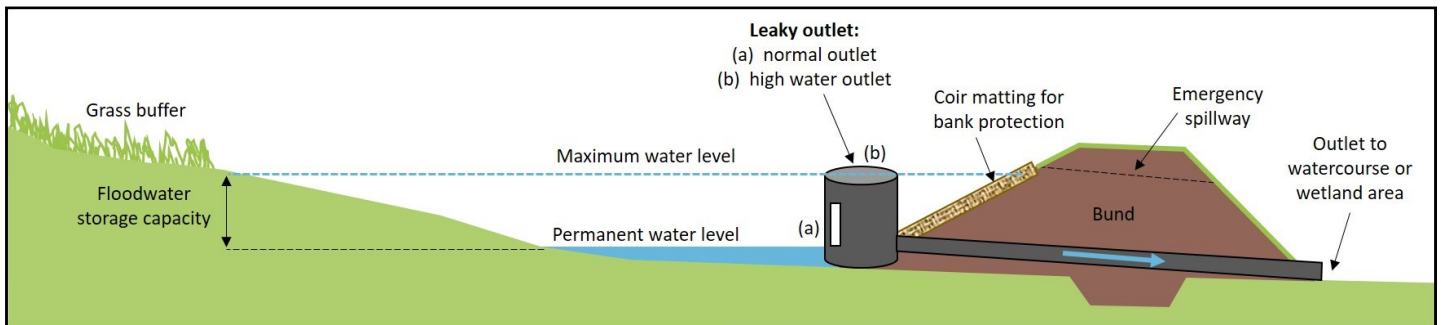


Runoff ponds provide water storage during times of heavy rainfall, to collect surface runoff. These ponds should be “leaky”, with a slow outflow via a spillway or pipe, helping to slow the flow of runoff. Although there may be a low level of permanent water, it is important that these ponds can be emptied before heavy rainfall events to provide maximum water storage capacity.

The best sites for runoff ponds are:

- Where run-off pathways can be intercepted
- Areas of regularly wet ground and low productivity (not replacing valuable habitat)
- Areas with easy access for maintenance, where compaction can be avoided

Importantly, these runoff ponds are **not connected** to streams or rivers by pipes or open channels. However, they may feature a leaky outlet in the form of a pipe or a spillway to lose water over time.



## Requirements

- Ponds can be standalone or constructed as part of a series of smaller pond features (which may be connected together through spillways and channels).
- Check there are no restrictions to locating the option on the land such as historic features or agri-environmental agreements.
- Runoff ponds are typically between 100—400m<sup>2</sup> and up to a maximum depth of 1.5m but should be determined by a) soil type, b) available land and c) volumes of run-off and directions of flow pathways to be intercepted (FWAG SW has maps for this)
- Set aside excavated topsoil separately to use on the bed and side slopes of the pond.
- Side slopes should be no steeper than 1:3
- Consider using biodegradable geotextiles (e.g. coir matting) to protect the banks against erosion and scour especially in the first few years after construction.
- Establish a grassy sward on the sides of the pond and maintain this cover throughout its lifetime (for example, at a multi-species seed rate of 25g per metre square with species tolerate of both wet and dry conditions).

## Management of Ponds

- Pond banks may require reseeded or matting to ensure soil stabilisation over time.
- Check water level and depth of silt regularly (especially after heavy rain and before the winter)
- Keep outflows clear of vegetation and debris
- Remove silt and spread back onto the field when necessary
- Ponds with outlet piping require additional maintenance and monitoring to ensure water is not undermining or circumventing the pipe.

## Further Information

- Though designed for water storage, new ponds can also have a great benefit for biodiversity. Consider this factor during design and construction—for example, shelves of varying depth within the pond allow a wider variety of species to flourish.
- Excavated material must be disposed of appropriately. Alternatively, you could incorporate other design features such as a soil bund around the pond to increase storage capacity and utilise spoil. Spoil could also be used for other measures such as **cross-slope hedge planting on banks**.
- New runoff ponds could be combined with other measures such as **flow spreaders** and **leaky dams** which could encourage floodwaters to fill the pond during rainfall events.
- Planning Permission or Prior Notification (Agricultural Exemption) may be needed depending on the size and agricultural use. FWAG SW can give site-specific advice on this.
- Consult FWAG SW for further information or with any questions about pond design and construction.

**Please note: successful bids for runoff ponds will require them to be constructed by 1st November 2022, unless otherwise agreed.**

