Information note:

Scrapes

Summary

- Scrapes are temporary shallow pools that gradually dry out through the spring and summer to provide valuable feeding habitat for a wide range of birds, but particularly breeding waders such as lapwing and redshank.
- Scrapes can be created by reducing drainage from natural depressions, or by excavating shallow pools.
- Important features are shallow slopes, plenty of edge and deeper points sufficient to hold water through until June.

Wildlife benefits

Scrapes are temporary shallow pools that gradually dry out through the spring and summer to provide shallow water, muddy margins and sparse marginal vegetation in which adult and young birds alike can probe and search for food. The conditions created by the periodic flooding and drying of ephemeral water bodies attract a limited but specialised range of invertebrates, some of which can occur in very high numbers due to the absence of aquatic predators associated with permanent water bodies. These provide a valuable food source for waders and their chicks, and can extend the availability of food later into the summer as other land dries out. Scrapes also have the potential to benefit a much wider range of birds known to benefit from insect-rich wet areas on farmland. Seed-eating birds can also benefit from the annual plants that germinate on the margins of scrapes.

Practical management

Creating the scrape

Scrape creation should only be attempted in suitable areas. It is important to consider all the issues before proceeding, and where necessary, specialist advice should be sought. The key issues that need to be assessed are similar to those when re-wetting grassland (see table below):

Scrapes may be located in a range of soil and hydrological conditions, but will mostly be targeted to known damp area where water lies naturally on impermeable soils. Ideally locate in a natural depression, or earthmoving equipment can be used to achieve the correct depth or create from scratch.

Assess the soils and drainage patterns of the site. Creating a scrape is often simply a case of blocking drains that take water away from the scrape area or redirecting ditches or drains into it. Consider any likely impacts created up-stream by blocking or diverting drainage.

Key issues to be considered before re-wetting farmland

Issue	Points to consider
Geographic location	• What are the target species? They should ideally be present in the locality to enable colonisation.
Site location and size	• Is there a history of wetland habitats in the locality? Colonisation will be quicker if adjacent to other wetlands. • Is the site suitable for the target species? • Can the appropriate grazing or cutting management be provided to maintain the ideal habitat?
Hydrology and soils	• Will soils remain damp into spring and early summer? • Does altering the drainage affect other land? Consult with appropriate authorities to ensure there is no conflict.
Potential conflict with other features/management.	• Does the land have existing conservation value; eg species rich flower meadow, or used by other species that may be damaged by raised water levels? • Is the land a Scheduled Ancient Monument, other archaeological site, or ridge and furrow field system? • Identify areas for re-wetting that cause the least inconvenience to the farming system.

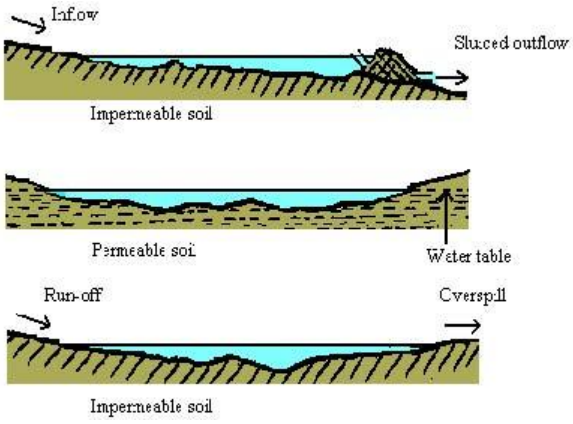
Wetland edge can be maximised by creating an irregular, convoluted outline (see figure below). Water depths in the scrape in early spring should typically be 0–25 cm over half of the area and the remainder 25-50 cm. A very gentle slope with an uneven finish will allow shallow wet pools to remain longer within the scrape and allow a gradual exposure of muddy feeding areas.

Several small scrapes are preferable to a single larger scrape. This will provide more 'edge' habitat for feeding, and not concentrate all birds in one place where they may attract the attentions of predators. Keep scrapes open to livestock grazing to keep the vegetation open enough for chicks. Scrapes can also provide a source of drinking water for livestock.

Any spoil material that is the by-product of excavating the scrape should ideally be removed away from the area. Alternatively, the spoil could be used to construct a bund around the downstream edge of the scrape. Note that this may limit the openness of the scrape and reduce its attractiveness to birds. Bunds need to be carefully engineered so that they are stable and impervious. It is very important to consult with the appropriate authorities to ensure that designs are appropriate and storage capacities are not exceeded, as there are serious safety considerations.

A valuable wet feature similar to a scrape can be created by bunding a ditch with an outlet pipe to control water levels, and widening the profile of the ditch immediately upstream of the bund.

Types of scape



Type A: Dry area with impermeable soil. Water is retained by bunds and a control structure

Type B: Permeable soil with high groundwater. Surface flooding occurs in a depression as a result of a high water table.

Type C: Wet area with impermeable soil. Water retained in low-lying wet areas.

Managing water levels

Water levels can be left to fluctuate naturally, but where possible, it is advantageous to be able to control water levels. Without the ability to control the inflow or outflow of water, the scrape may dry out too soon in early dry weather, while a wet spring may result in levels remaining too high. It also allows levels to be lowered gradually through the spring to expose fresh mud for foraging birds, and dried out in the summer. Simple water control devices such as sluices or sandbag can be used to help manage levels.

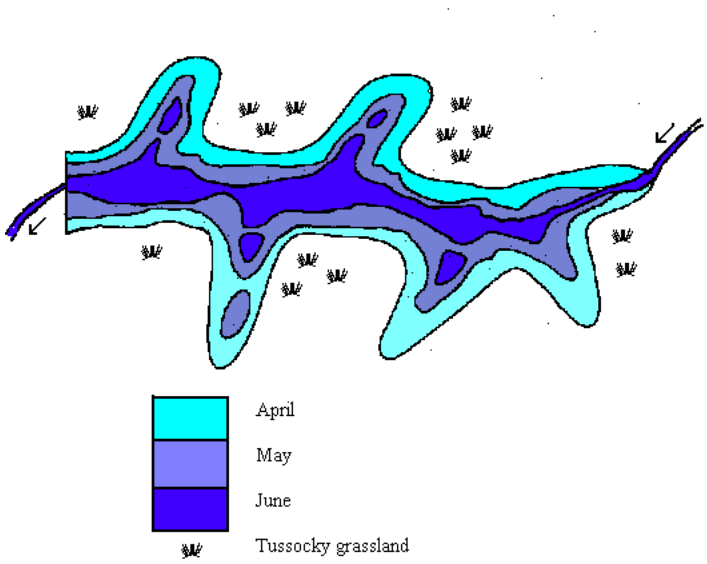


Figure: Hypothetical scrape, showing receding area of water through spring and early summer.

The outer line represents the extent of the open water in early April. The middle line represents the shrinking area of water by the end of May and the inner by the end of June. Annual weeds will have grown on the mud and set seed. By August, the scrape should be all but dry, allowing for any required management.

Contact us

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