Supporting guidance for Wetland Management

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What is a wetland?

Wetlands are areas where the soil is saturated at the surface, either permanently or seasonally.

Wetlands range from small basin fens to extensive floodplain marshes. As well as providing home for a wide range of birds, insects and plants, wetlands also provide us all with clean water, and help to moderate floods. They can also provide material for thatching and grazing.

Examples of different wetland habitats include:

Fen meadows

This habitat is dominated by tall flowering plants like meadowsweet, purple moor-grass and / or rushes. They often occur in mosaics with grassland, or merge into other wetland habitats such as bogs or fen.

Fens

A fen is a wetland that receives water and nutrients from surface and / or groundwater, as well as from rainfall. These habitats are dominated by sedges, rushes, reeds, or meadowsweet. The mix of species and height of the vegetation will vary according to the characteristics of the water that supplies the fen.

These habitats are important for their vegetation interests, as well as the habitat they provide for birds and insects.

Saltmarsh

Saltmarshes are coastal wetlands found in the intertidal zone between land and open salt water or brackish water that is regularly flooded by the tides.

Reed beds

Reed beds are a distinctive type of swamp comprising dense stands of common reed that can tower up to four metres high. Reed beds are often a natural component of wetlands: they are important for birds and perform a useful function in mopping up nutrients from water.

You can only claim wetland payments on areas of reed bed that are not permanently waterlogged, as this would be classed as ineligible for the Basic Payment Scheme. You can remove permanently saturated areas from the overall wetland management area payment.

To help you decide how to manage your wetland you should first identify what type of wetland it is.

You can do this using A Functional Wetland Typology for Scotland: Field Survey Manual .

You can also apply to create a new wetland.

Why managing your wetland is important

- to improve, or maintain semi-natural habitat for biodiversity
- to create, improve or maintain habitat for birds
- to create or improve a wetland which acts as a natural area for water storage, and so slowing down the flow of water to reduce the impacts of flooding downstream

The information you should gather to help decide what management is appropriate on your wetland

- if it is an existing wetland, what type of wetland is it?
- are there any important plant communities or areas important for birds, invertebrates or mammals?
- is the site actively drained?
- are there sources of nutrients which are affecting the vegetation on the site?
- is your wetland a designated site?

The Wetland Management option is only suitable for wetland that will be managed by grazing or cutting. There may be some areas of your wetland where cutting or grazing is not feasible but you can still apply for capital items, for example ditch blocking on those parts of the site.

Wetland creation

If the aim is to create a new area of wetland or extend an existing wetland there are several things to consider.

The new wetland must offer a clear improvement to the current situation, whether that be in terms of the biodiversity, or if it will provide obvious flood storage benefits.

You will need to provide details of how will you raise and control water levels in order to create the wetland.

Water levels can be managed using a variety of methods, including blocking ditches or breaking field drains. We do not recommend that you impound water or divert it away from a watercourse.

However, there may be situations where this is appropriate. If you do wish to proceed in this way you will need to contact the Scottish Environment Protection Agency as a licence under the Controlled Activities Regulations may be required.

If you propose to plant new reed beds, please follow the design guidance produced by the Royal Society for the Protection of Birds.

The wetland creation and management payment cannot be claimed on land classed as rough grazing.

The payment rate is for creation on improved or arable ground. If wetland creation is undertaken on unimproved ground, only the wetland management rate can be applied.

Water management structures for wetlands

If you are planning on creating a wetland, or to change the water levels within an existing wetland, you might need to install structures to help with this.

The Royal Society for the Protection of Birds has a useful guidance note outlining the types of structures and associated costs and considerations. See Water Management Structures for Conservation (technical case study series) for further information.

Remember that some of these structures may need a Controlled Activity Regulations application. Scottish Environment Protection Agency will be able to advise if this is required.

Where you are creating, for example, a new area of lagg fen (a natural feature of a raised bog) on a site that is already vegetated then you could take a long-term approach and let the wetland vegetation develop gradually through the management of water levels, cutting, grazing and nutrient inputs.

It is also possible to establish fen vegetation on bare substrate. Guidance on this is available in the Fen Management Handbook.

Management of established wetlands

Management by cutting and / or grazing is an important way to maintain and improve most wetland habitats. Both of these methods promote biodiversity and help to create a healthy wetland.

Vegetation management – cutting

Machinery may be used to cut and harvest some types of wetland vegetation. Removal of the vegetation from site prevents a build-up of thatch whilst removing nutrients from the site.

Use of machinery should be timed to avoid wetter periods and damage to the soil and also to avoid the breeding bird season.

Where there are no livestock you can manage fen meadow by cutting late in the summer, after 15 August and before 30 September.

Cuttings should be baled and removed or they will smother the sward and add to the fertility of the soil, leading to a decline in species-richness.

Fen meadow managed by cutting alone can be very uniform so it is a good idea to leave 5–10 per cent uncut each year, a different area each time, to vary the sward height and allow seed to set seed.

Grazing after cutting (aftermath grazing) will also create variety. You may also need to top rushes on rotation to promote the creation of a diverse wetland.

The timing and frequency of cutting should take into account the types of fen vegetation you have on your land and the water levels on site.

You can find more detailed guidance on cutting in the Fen Management Handbook .

Vegetation management – grazing

Fen meadows need to be grazed or cut otherwise the rushes and grasses will grow tall and dense and will shade out the smaller plants.

The traditional management of the fen meadow – whether it was grazed or cut in the past – is a good guide to the best management for the wildlife living there now.

Grazing is usually the preferred management since grazing animals create variety by eating, dunging and trampling unevenly across the field.

Cattle tend to be better suited to fen meadows and, since they are less selective grazers than sheep, light summer grazing with cattle can still allow flowering and seed set.

Sheep may be better suited to grazing shorter swards, particularly on fragile sites vulnerable to poaching. Since they selectively eat flowers, a short exclusion period in the summer (four to eight weeks) may be a good idea when you are grazing with sheep.

You should avoid continuous grazing for long periods and heavy stocking and grazing during the wettest times of the year since these can lead to poaching and a breach of the management requirement for wetlands.

When grazing wetlands, the key factor is to take account of the ground and weather conditions and to adjust your grazing accordingly to prevent poaching. It is beneficial to graze sensitive wetland habitat in conjunction with adjacent drier land where this is available.

This both provides firmer ground for the stock to retreat to when water levels are high and can also result in a reduction in nutrients on the site as stock graze on the wetland and then move onto the drier land to rest up and dung.

The timing of wetland grazing can vary according the conditions, the type of vegetation and your objectives. Spring grazing can be useful to reduce the dominance of species such as purple moor-grass or reed canary-grass.

Further information on grazing wetlands, including timing, stocking rates and suitable types of livestock is available in the Fen Management Handbook .

Supplementary feeding of livestock on wetland areas should be avoided, both to prevent poaching around feeding areas and to prevent the introduction of seed from undesirable species.

You can find more detailed guidance on cutting in the Fen Management Handbook .

Application of nutrients to land

Fertiliser, lime, slurry should not be applied to wetland areas. Manure heaps should not be stored close to a wetland area where nutrient rich effluent or run-off from these could enter the wetland.

The nutrients within these can reduce the quality of the water supporting the wetland and flowing out from it.

Excess nutrients can also change the type of vegetation growing in the wetland, leading to an expansion of more invasive species and creating a need for additional management measures to control these invasive plants.

Planning your management

You will need to produce a management plan to go along with your application. This plan should contain details of the type of wetland, and what management you propose to carry out on the site. You should include details of any cutting and grazing management.

Further information

There are a number of useful, freely or cheaply available guides which provide a wide range of management advice for wetland habitats.

• **Habitat Specific Guidance**	
Wetland habitat identification	A Functional Wetland Typology for Scotland - Field Survey Manual Field survey forms and additional information can be found on the SEPA website.
Fen	The Fen Management Handbook A McBride, I Diack, N Droy, B Hamill, P Jones, J Schutten, A Skinner, M Street 2011 - Scottish Natural Heritage
Wet grassland	*The Wet Grassland Guide* 1997 - Royal Society for the Protection of Birds, English Nature and The Institute for Terrestrial Ecology ISBN: 0903138867 Wet Grassland Practical Manual: Breeding Waders
Saltmarsh	Saltmarsh Management Manual - Chapter 5

	The Saltmarsh Creation Handbook: A Project Manager's Guide to the Creation of Saltmarsh and Intertidal Mudflat A Nottage and P Robertson 2005 - Royal Society for the Protection of Birds and Chartered Institution of Water and Environmental Management ISBN: 1901930548
• Practical management guidance and legislation	
Controlled Activities Regulations (CAR)	The Water Environment (Controlled Activities) (Scotland) Regulations 2011. A Practical Guide Version 7.1, March 2014 This guidance covers the legislation surrounding pollution control, abstraction, impoundment and engineering activities in the water environment, some of which will be applicable to aspects of wetland management.
Water management structures	RSPB Water Management Structures for Conservation - Technical Case Study Series Provides information on structure design, effect, maintenance and associated costings with reference to specific case studies.
Modification of agricultural drainage for wetland conservation	RSPB Lowland Agricultural Land Drainage Systems: Function and Modification for Wetland Conservation Historic drainage, surveying, drainage interruption and water level management.

Recent changes

Section	Change
Wetland creation	Addition of text advising that this option cannot be claimed on rough grazing and clarification over the payment rate.

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