

Views About Management



A statement of English Nature's views about the management of Holborough to Burham Marshes Site of Special Scientific Interest (SSSI).

This statement represents English Nature's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. English Nature has a duty to notify the owners and occupiers of the SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

The management views set out below do not constitute consent for any operation. English Nature's written consent is still required before carrying out any operation likely to damage the features of special interest (see your SSSI notification papers for a list of these operations). English Nature welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Management Principles

Floodplain Fen

Floodplain fens develop on flat areas that have historically been flooded by waters from rivers and streams that meander across the plains. Floodplain vegetation may also be dependent on water seepage from subterranean aquifers or from seepage down or at the base of the constraining slopes.

Floodplain fen is commonly composed of tall grasses and herbs, such as reed, willowherb, milk parsley, meadowsweet, angelica and nettles. If left unmanaged the sward becomes dominated by tall, vigorous grasses and rushes which, together with an associated build up of dead plant matter and the encroachment of scrub, suppress less vigorous species, thus lowering the botanical richness of the sward. Rotational cutting or intermittent grazing is usually required. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation. Cattle also tend to produce a rather uneven, structurally diverse sward. However, ponies, or even hill sheep, can be used if necessary. Grazing usually takes place at times between late spring and early autumn, but the precise timing and intensity will depend on local conditions and requirements, such as the need to avoid trampling ground-nesting birds. Heavy poaching should be avoided but light

trampling can be beneficial in breaking down leaf litter and providing areas for seed germination.

Rivers are dynamic and can cause erosion on some parts of the floodplain and deposit of silt in others. Management should not necessarily aim to maintain each component of the floodplain fen in exactly the same place, but should ensure that the full range of niches remain available for use by plants and animals over the course of time.

River water quality is important for floodplain fen and management should ensure it remains within acceptable limits. It is normal for the lower reaches of rivers to contain more plant nutrients than at source, and most floodplain fens depend on an adequate supply of nutrients being maintained. However, excessive nutrient enrichment may result in the replacement of the characteristic floodplain fen communities with very species-poor vegetation, composed of little but a tall dominant grass such as reed or reed sweet grass with nettles.

Winter flooding is an important factor in the management of some floodplain habitats and management should ensure the frequency and extent of flooding is appropriate for maintaining the nature conservation interest of the site where this is the case. For example, river engineering has in many cases reduced the frequency and extent of flooding. Changes in agriculture and the use of floodplains for built development have also often resulted in smaller floodplains and the requirements of floodplain habitats should be considered in the design of such schemes in the future. The balance between groundwater and floodwater influence on the floodplain should be identified and maintained when designing the extent and frequency of controlled flood events.

Swamp

Swamp habitats develop on the fringes of open water, or in shallow depressions with permanent standing water. The plants may be rooted in the submerged soil or form a floating mat of inter-twined roots, rhizomes and stems. Swamps usually consist of a dominant single species of plant (e.g. reeds, tussock sedges, reedmace, reed sweet grass, reed canary grass and bull rushes) with a few other species thinly distributed among them. In common with most other types of wetland, swamps represent a transient stage in the change from open water to dry land.

Management should either seek to retain swamp communities in the same place or should acknowledge the dynamics of succession by ensuring there is always a new niche for the swamp communities to develop in. The succession from swamp into floodplain fen, for example, as the diversity of species present increases, may be slowed by raising the water table and by periodically removing any encroaching scrub. If the vegetation surface of the whole wetland appears to be building up or drying out for some other reason it may be necessary to lower the ground level by creating scrapes or ponds. A programme of rotational cutting to maintain the reedbed may be necessary to encourage the vigorous growth of reed whilst preventing excessive build up of litter. Cutting should take place during the winter (November – March) and all cut material should be removed.

Management should ensure that appropriate water quality is maintained according to the requirements of the wetland communities present. Where swamp is in continuity

with a waterbody, the water quality in the waterbody will affect the swamp. While some communities, such as reed swamp are unlikely to be very sensitive to nutritional enrichment, others, such as tussock sedge and narrow leaved reedmace, will be out-competed by other species (e.g. reed or reed sweet grass) where any increase in the amount of nutrients present occurs.

Swamp habitats have often survived where the vegetation has traditionally been cut for a variety of purposes, including use as building materials or animal bedding. It may be beneficial to consider re-instating these traditional management practices where they are not in conflict with other nature conservation objectives, such as the specific requirements of certain birds or invertebrates.

Lowland wet woodland

Wet woodland includes a range of different woodland types but usually is dominated by ash, alder and willow species. It often supports important invertebrate species and assemblages.

Areas usually benefit from minimum intervention and are often best left undisturbed to limit damage to their fragile soils. This allows the development of old stands where individual trees reach maturity and die naturally to create gaps in the canopy, leading to a diverse woodland structure. However, works to remove dangerous trees in areas of public access may be necessary.

Marshy grassland

Marshy grassland requires active management if it is to retain its conservation interest. Generally, each year's growth of vegetation must be removed. Otherwise the sward becomes dominated by tall, vigorous grasses and rushes which, together with an associated build up of dead plant matter, suppress less vigorous species and lower the botanical richness of the sward. Traditionally, this management is achieved by grazing. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation. Cattle also tend to produce a rather uneven, structurally diverse sward. However, ponies, or even hill sheep, can be used if necessary. Grazing usually takes place at times between late spring and early autumn, but the precise timing and intensity will depend on local conditions and requirements, such as the need to avoid trampling ground-nesting birds. Heavy poaching should be avoided but light trampling can be beneficial in breaking down leaf litter and providing areas for seed germination. An element of managed scrub, both within and fringing a field can be of importance to birds and invertebrates, as can a surrounding hedge. Careful maintenance of existing ditches and drains is usually acceptable practice, but abandonment or deepening of ditches can be harmful.

Artificial standing waterbodies

Artificial standing waterbodies include manmade lakes, reservoirs, gravel pits, subsidence pools, and flooded peat diggings. They may support wildlife equal to that of natural lakes, and can be important habitats for a range of specialised aquatic plant and animal species. They often support important populations of wintering wildfowl and breeding bird assemblages, as well as a varied invertebrate fauna (in particular dragonflies and damselflies).

Conservation value is largely determined by structural diversity and water quality. Increases in the amount of nutrients within the waterbody can lead to a loss of aquatic plants in favour of excessive growths of algae. This may result in a fundamental shift in the way a waterbody functions, reducing plant and invertebrate abundance and diversity, both of which are important food sources for a range of wetland birds. Increases in the amount of sediment entering a lake may smother stony beds and plants, reduce water depth in shallow lakes and also increase the amount of nutrients present. Some lakes may also be susceptible to acidification though control of this will require action at a catchment scale.

Sympathetic management of water levels is necessary for the maintenance of optimal water depths throughout the year (according to the requirements of the plant and animal species present). For example, the presence of extensive shallow water and wet marginal substrates will provide the feeding conditions required by a variety of wintering, passage and breeding wildfowl, such as dabbling ducks and waders, whilst other species may require areas of water at least 3 metres in depth. Water level management should take into account the requirements of submerged aquatic plants that are restricted to areas where there is sufficient light for growth and minimal wave action. In shallow waterbodies (with an average water depth of less than 3 metres) plants may be able to grow throughout the waterbody, whilst in deeper waters plants will be restricted to the shallow margins. Changes in waterlevels can also alter nutrient regimes.

Management should aim to maintain the habitats associated with shallowly sloping margins that are not too exposed to wave action, as they are important for many species associated with standing open waters. For example, the maintenance of structural diversity within and between stands of aquatic vegetation (including emergent, floating and submerged vegetation) can provide important habitat for the immature stages of different dragonfly and damselfly species that require a wide variety of vegetation types.

Artificial waterbodies are susceptible to the introduction of invasive species, such as non-native crayfish, bottom feeding coarse fish, and plant species such as Australian swamp stonecrop, therefore some management may be necessary to control these. Where native crayfish are present any measures which may limit the risks of transferring non-native crayfish or crayfish plague (such as information and awareness-raising initiatives amongst visitors to the waterbody) should be encouraged. The control or removal of the natural aquatic vegetation can lead to a decrease in aquatic plants in favour of algae, and should therefore be avoided.

Standing waters and their surroundings are often also a popular environment for recreational activities such as angling and boating which should be managed sympathetically to avoid conflict with the management of the waterbody for nature conservation.

All habitats

The habitats within this site are highly sensitive to inorganic fertilisers and pesticides, applications of which should be avoided both within the site itself and in adjacent

surrounding areas. Herbicides may be useful in targeting certain invasive species, but should be used with extreme care. Access to this site, and any recreational activities within, may also need to be managed.