Views About Management

ENGLISH NATURE

A statement of English Nature's views about the management of Ant Broads and 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

Natural standing waterbodies

Natural waterbodies such as lakes and meres are an integral part of the landscape and are as important for their physical characteristics as they are for the wide range of aquatic plant and animal species they support. Management should aim to retain their natural characteristics such as the lake shape and shoreline profile.

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 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 birds, such as dabbling ducks and waders; whilst other species, such as some fish, 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 lakes (with an average water depth of less than 3 metres) plants may be able to grow throughout the waterbody. Changes in water levels can also alter nutrient regimes.

Management should maintain the habitats associated with shallowly sloping margins that are not too exposed to wave action, where stands of emergent plants may develop, as they are important for many of the animal species to be found in lakes. For example, the maintenance of structural diversity within and between stands of aquatic vegetation (including emergent, floating and submerged vegetation) provides valuable habitat for fish species and the immature stages of different dragonfly and damselfly species that require a wide variety of vegetation types.

The control or removal of the natural aquatic vegetation, or the introduction of bottom feeding coarse fish that uproot plants and disturb lake sediments, can lead to a decrease in aquatic plants in favour of algae. Indeed, lakes are susceptible to the introduction of many invasive species such as non-native crayfish and Australian swamp stonecrop, an introduced plant, and some management may be necessary to control these where they occur. The fish community associated with a particular site will be an important factor in determining the conservation value; any changes to the fish community could therefore have significant impacts.

Lakes 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 lake for nature conservation.

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.

Ditches

Ditches are artificial habitats created by land drainage, or occasionally by the channelisation of small streams. They may represent the only remaining freshwater habitat within former wetland areas, and often support a wide range of aquatic plant and animal (in particular invertebrate) species that would have previously been more widespread in ponds and wetlands.

If left unmanaged, silt accumulates in the bottom of the ditches, and emergent plants such as reeds are able to colonise across the width of the ditch, leading to a loss of aquatic plant diversity and a gradual drying out of the ditch. To prevent this, periodical removal of sediment and vegetation may be necessary to return the ditch to an early stage of the management cycle. Ideally, ditch management should be undertaken on a rotation, creating a series of different management stages across a site at any one time. All stages of the management cycle have wildlife interest; recently cleared ditches are good for plants and animals which favour newly created habitats and cannot tolerate competition with other species; middle-stage ditches support a rich aquatic plant flora; and late-stage ditches may be important for a variety of invertebrates. The removal of both sediment and vegetation is usually better than simply cutting the vegetation, which does not recreate the earliest stages of the ditch management cycle. Where possible, management should aim to create shallow shelving margins rather than steep ditch sides. Where water voles are known to be present, the relevant good practice guidelines for ditch management and conservation should be followed.

Most ditch systems are subject to water level control, which should be managed to ensure that there is a sufficient depth of water in ditches throughout the year. Rapid or extreme changes in water level should be avoided unless they are known to be important to plant or animal communities relying on such fluctuations.

Ditches are susceptible to increased levels of nutrients which can cause a loss of aquatic plants and increases in algal growth. Other activities that can lead to this include the control or removal of aquatic plants, or the introduction of species such as bottom feeding coarse fish which uproot plants and disturb ditch sediments. Ditches are also susceptible to invasion by non-native aquatic plants such as floating pennywort and water fern, which are able to grow rapidly taking up available habitat and smothering other plants. Some native plants including a number of duckweed species are also able to take over in this way (although such growths are usually exacerbated by increased nutrients in the water) and management may be necessary to control such invasions where they cause a problem.

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.

Where particularly important light-demanding or glade species interests are present, including where the woodland is spreading on to valuable open wetland habitat, it may be necessary to periodically clear areas of vegetation. In some woods a more active programme of management by coppice may be appropriate, where this has been the historical management and the conditions are such that it will not lead to heavy ground disturbance.

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.