

Broadland Tree Warden Network



In association with Brundall Parish Council



Church Fen Local Nature Reserve Management Plan

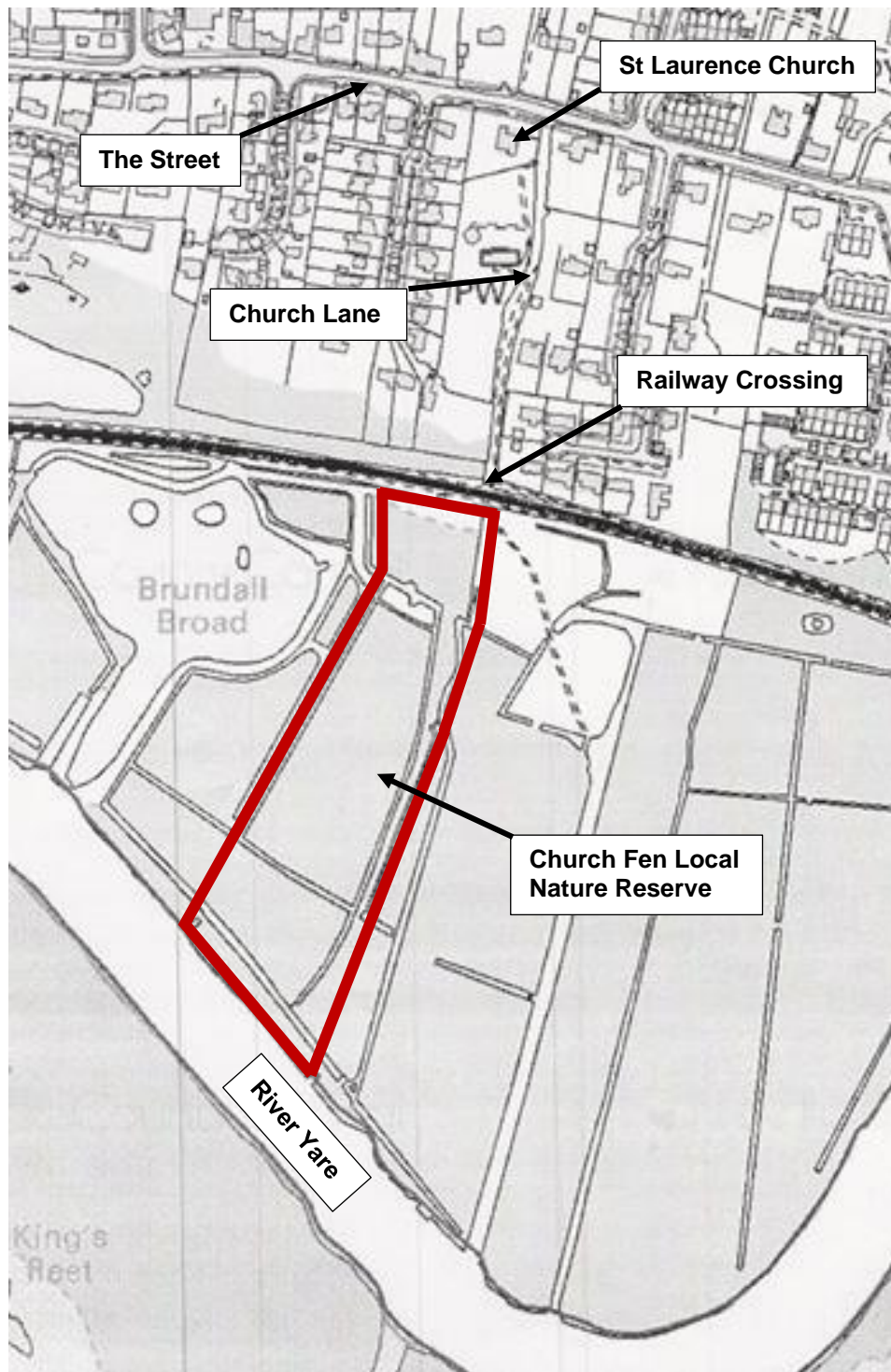
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1. The Site

Brundall Church Fen is an area of fen and carr woodland, laying to the south of St Laurence Church and accessed via Church Lane. It lies to the east of Brundall Broad, between the railway and River Yare, and covers some 3.133 hectares (7.743 acres). It forms part of the river flood plain and is defined on the plan below.



2. Site History

Brundall Parish Council purchased the site in March 1980 from Mrs H F Geary.

Taking the history of the Norfolk Broads right back the site was originally an area of salt grazing where sheep grazed the grass up to their ankles in salt water.

Faden's map of 1838 shows the entire flood plain area of Brundall as fen or marsh. Then, the first edition Ordnance Survey map of 1938 indicates the area as grazing land, but by 1908 a few areas of mixed woodland were present with a strip of woodland adjacent to the margins

In the 1890's, two "roadways" crossed the site, following the route of the current path and boardwalk and the land between them was denoted "meadow". Since then, owing to the gradual decline in grazing during the 20th century, the site has seen extensive scrub and carr woodland development.

In 1998, Brundall Parish Council decided to create a Conservation Area on the site, thereby ensuring the preservation of a unique environment.

In 2004 Church Fen the Broads Authority suggested to the Parish Tree Warden that he should seek Local Nature Reserve Status from English Nature and Norfolk County Council. That the status was awarded and the formal agreements were signed at an opening ceremony held on Wednesday 21 July 2004.



3. Local Nature Reserves

Local Nature Reserve (LNR) is a designation for nature reserves in Great Britain. The designation has its origin in the recommendations of the Wild Life Conservation Special Committee which established the framework for nature conservation in the United Kingdom and suggested a national suite of protected areas comprising national nature reserves, conservation areas (which incorporated suggestions for Sites of Special Scientific Interest), national parks, geological monuments, local nature reserves and local educational nature reserves.

Today there are over 1,280 LNRs in England, covering almost 40,000 hectares, which range from windswept coastal headlands and ancient woodlands to former inner-city railways and long abandoned landfill sites.

A Local Nature Reserve is a statutory designation made under Section 21 – "Establishment of nature reserves by local authorities" – of the National Parks and Access to the Countryside Act 1949 by principal local authorities (district, borough or unitary councils) in England, Scotland and Wales. Parish and town councils in England have no direct power to designate nature reserves, but they can have the powers to do so delegated to them by their principal local authority using section 101 of the Local Government Act 1972.

Local authorities can create local nature reserves. Town and parish councils can create Local Nature Reserves if the district council has given them the power to do this.

The local authority must control the Local Nature Reserve land either through ownership, a lease or an agreement with the owner. As a manager of a Local Nature Reserve you need to care for and protect its natural features. You must also make your land accessible for any visitors. It is not a formal requirement that a Local Nature Reserve is open to the public but you should aim to make at least part of it publicly accessible.

Many types of land can make suitable Local Nature Reserves. They are usually areas of natural green space but brownfield and artificial sites, such as historic cemeteries; agricultural land and orchards; and commons and other accessible green spaces can also be Local Nature Reserves as long as they have wildlife or geological interest.

To declare a site as a Local Nature Reserve, contact Natural England which will add it to The Designated Sites view website which provides information about Local Nature Reserves to the public.

Local authorities can run Local Nature Reserves independently or can involve 'friends of' community groups; Wildlife Trusts and other recognised conservation bodies; site-based rangers; local school children; and Natural England (who can give advice)

Local Nature Reserve s should be publicly accessible where visitors would not damage or disturb wildlife. Access can be restricted to some areas if visitors could cause damage to the natural environment, unless the public have statutory access rights.

Local authorities and town and parish councils can create Local Nature Reserve byelaws which can help stop people damaging a Local Nature Reserve. For example, prevent visitors walking into areas where they could harm wildlife. Before creating byelaws, other ways to keep the Local Nature Reserve safe and its wildlife protected must be tried. People can be fined if they break the byelaws.

Byelaws can only be enforced within the Local Nature Reserve. They must not replicate existing laws. The Local Nature Reserve must have been formally declared to Natural England or the byelaws will be invalid.

4. Objectives

The objectives of the Broadland Tree Warden Network and Brundall Parish Council in the management of the Brundall Church Fen Local Nature Reserve are to

- i) conserve the site as fen and carr woodland;
- ii) encourage a diversity of wildlife by managing the site appropriately to provide a suitable habitat;
- iii) maintain a natural woodland and reed bed structure and control non-native exotic species such as rhododendron and Japanese knotweed;
- iv) provide public access to the site, but restrict the public to designated paths in order to protect the area for conservation;
- v) provide an access for anglers that does not cause damage to the river bank; and
- vi) carry out minimum management at all times, thereby encouraging a more natural environment.

5. Management

Brundall Church Fen will be managed by The Broadland Tree Warden Network, primarily the Broadland Tree Warden Network Tree Warden for Brundall, reporting regularly to Brundall Parish Council. Such management shall be in accordance with the provisions of this Management Plan

6. Plant List

The following plants were growing in Brundall Church Fen at the time of its designation as a Local Nature Reserve. The list will be checked and updated in the first year of management by The Broadland Tree Warden Network.

6.1 Trees and Shrubs

Ash, common	<i>Fraxinus excelsior</i>
Alder	<i>Alnus glutinosa</i>
Birch, downy	<i>Betula pubescens</i>
Birch, silver	<i>Betula pendula</i>
Blackcurrant	<i>Ribes nigrum</i>
Box, common	<i>Buxus sempervirens</i>
Bramble	<i>Rubus fruticosus</i>
Broom, Butcher's	<i>Ruscus aculeatus</i>
Buddleia	<i>Buddleia davidii</i>
Cherry, wild	<i>Prunus avium</i>
Dogwood, red	<i>Cornus alba</i>
Elder	<i>Sambucus nigra</i>
Elm, wych	<i>Ulmus glabra</i>
Guelder rose	<i>Viburnum opulus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel, common	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Hop	<i>Humulus lupulus</i>
Horse-chestnut	<i>Aesculus hippocastanum</i>
Ivy	<i>Hedera helix</i>
Knotweed, Japanese	<i>Reynourtria japonica</i>
Laurel, cherry	<i>Prunus laurocerasus</i>
Lime, common	<i>Tilia x europaea</i>
Maple, Norway	<i>Acer platanoides</i>
Oak, pedunculate	<i>Quercus robur</i>
Oak, holm	<i>Quercus ilex</i>
Plum, Myrobalan	<i>Prunus cerasifera</i>
Poplar, balsam	<i>Populus trichocarpa</i>
Poplar, Italian	<i>Populus 'serotina'</i>
Poplar, white	<i>Populus alba</i>
Privet, common	<i>Ligustrum vulgare</i>
Privet, glossy	<i>Ligustrum lcidum</i>
Privet, oval-leaved	<i>Ligustrum ovalifolium</i>
Raspberry	<i>Rubus idaeus</i>
Redcurrant	<i>Ribes sativum</i>
Rhododendron	<i>Rhododendron ponticum</i>
Rose, dog	<i>Rosa canina</i>
Rose, Burnett	<i>Rosa spinosissima</i>
Snowberry	<i>Symphoricarpos albus</i>
Spindle, common	<i>Euonymus europaeus</i>
Spindle, Japanese	<i>Euonymus japonicus</i>
Sycamore	<i>Acer pseudoplatanus</i>
Willow, almond leaved	<i>Salix triandra</i>
Willow, crack	<i>Salix fragilis</i>
Willow, grey	<i>Salix cinerea</i>
Yew, common	<i>Taxus baccata</i>

6.2 Grasses

Cocksfoot
Frome, wood false
Grass, annual
Grass, rough
Grass, sweet
Reed
Reed, canary

Dactylis glomerata
Brachypodium sylvaticum
Poa annua
Poa trivialis
Glyceria maxima
Phragmites australis
Phalaris arundinacea

6.3 Wild Flowers

Alkanet, green
Angelica, wild
Avens, water
Avens, wood
Balsam, Himalayan
Balsam, orange
Bitter-cress, large
Bitter-cress, wavy
Bittersweet
Bracken
Burdock, lesser
Buttercup, creeping
Campion, red
Celandine, lesser
Chervil, bur
Chervil, rough
Chickweed
Chickweed, bog
Cleavers
Clover, white
Cone flower
Creeping-Jenny
Cuckoo flower
Daffodil
Daisy
Daisy, oxeye
Dandelion
Dead-nettle, red
Dead-nettle, white
Dock, broad leaved
Dock, clustered
Dock, wood
Elder, ground
Fern, Buckler
Fern, male
Fern, Matr's tongue
Figwort, water
Forget-me-not, water
Goldenrod, Canadian
Gypsywort
Heliotrope, winter
Hemp-agrimony
Hemp-nettle, common
Herb-Robert
Hogweed
Hogweed, giant
Horsetail

Pentaglottis sempervirens
Angelica sylvestris
Geum rivale
Geum urbanum
Impatiens glandulifera
Impatiens capensis
Cardamine amara
Cardamine flexuosa
Solanum dulcamara
Pteridium aquilinum
Arctium minus
Ranunculus repens
Silene dioica
Ranunculus ficaria
Anthriscus caucalis
Chaerophyllum temulentum
Stellaria media
Stellaria oliginosa
Galium aparine
Trifolium repens
Rudbeckia laciniata
Lysimachia nummularia
Cardamine pratensis
Narcissus pseudonarcissus
Bellis perennis
Leucanthemum vulgare
Taraxacum officinale
Lamium purpureum
Lamium album
Rumex obtusifolius
Rumex conglomeratus
Rumex sanguineus
Aegopodium podagraria
Dryopteris dilatata
Dryopteris filix-mas
Asplenium scolopendrium
Scrophularia auriculata
Myosotis scorpioides
Solidago canadensis
Lycopus europaeus
Petasites fragrans
Eupatorium cannabinum
Galeopsis tetrahit
Geranium robertianum
Heracleum sphondylium
Heracleum mantegazzianum
Equisetum arvense

Iris, yellow
Ivy, ground
Kingcup
Knapweed, common
Loosestrife, purple
Meadowsweet
Mint, water
Mustard, garlic
Nettle, common
Nightshade, enchanter's
Nipplewort
Parsley, cow
Plantain, greater
Plantain, water
Primrose
Reedmace
Sandwort, three-nerved
Sedge, greater pond
Sedge, lesser pond
Sedge, remote
Sedge, tussock
Skullcap
Snowdrop
Speedwell, germander
Thistle, creeping
Thistle, sow
Thistle, spear
Twayblade, common
Valerian, common
Water-lily, yellow
Water-parsnip, lesser
Water-starwort, common
Waterpepper
Willowherb, great
Woundwort, hedge

Iris pseudacorus
Glechoma hederacea
Caltha palustris
Centaurea nigra
Lythrum salicaria
Filipendula ulmaria
Mentha aquatica
Aliaria petiolata
Urtica dioica
Circaea lutetiana
Lapsana communis
Anthriscus sylvestris
Plantago major
Alisma plantago-aquatica
Primula vulgaris
Typha latifolia
Moehringia trinervia
Carex riparia
Carex acutiformis
Carex remota
Carex paniculata
Scutellaria galericulata
Galanthus nivalis
Veronica chamaedrys
Cirsium arvense
Sonchus oleraceus
Cirsium vulgare
Listera ovata
Valeriana officinalis
Nuphar lutea
Berula erecta
Callitriche stagnalis
Persicaria hydropiper
Epilobium hirsutum
Stachys sylvatica

7. Management of Vegetation

7.1 Standing Dead Trees and Dead Wood

Many woodland wildlife species depend on large old trees, standing dead wood and large fallen trunks and limbs. All too often, we are eager to keep sites “tidy” or have to fell dead trees because of the threat they pose to human safety. In Brundall Church Fen Local Nature Reserve, whilst there are no ancient or particularly old trees, it is possible to retain standing dead trees without a threat to public safety.



Therefore, **all standing dead trees and fallen dead wood will be retained unless they pose a threat to safety.**

The public will be restricted to use of the circular footpath around the site. As a result, they will not be threatened by any standing dead trees or precariously hanging dead limbs which are retained.

Fallen dead trees or limbs will be left on the ground, uncut, to provide a habitat for wildlife and mosses etc. As a general rule, they will be left where they fall. However, it may sometimes be necessary to drag them into shaded areas in order to prevent them drying out or if they pose a threat to safety. All standing or fallen dead trees or fallen branches will be made safe with a minimum of disturbance.

7.2 Alder and Willow

Specific individuals or areas of alder and willow will be coppiced on rotation, diversifying the habitat, maintaining tradition and extending the life expectancy of the trees.

7.3 Exotic Species

Brundall Church Fen Local Nature Reserve is slowly being invaded by non-native species. Rhododendron, giant hogweed, Japanese knotweed and snowberry have been allowed to grow freely and are highly invasive. **All non-native exotic species will be closely monitored and controlled.**

There is a belt of snowberry adjacent to the river bank which will initially be retained and closely monitored to see if it becomes unmanageable. Possibly originally planted as traditional game cover, it currently provides a barrier to rubbish being blown into the site from river users. Should it prove to be a problem, then consideration shall be given to it being replaced by a hawthorn and blackthorn hedge.

Leyland cypress is appearing in the at the northern end of the carr and needs to be removed before it grows any larger.

There is a legal requirement to control Japanese knotweed and giant hogweed and, indeed, these species will be controlled.

Rhododendron ponticum will gradually be eradicated from the site.

7.4 Other Species

There is much sycamore and horse-chestnut growing on the site. These species are widely regarded as “invasive” and potential problems. However, sycamore is currently the only native broadleaved species that is not threatened by a pest or disease. It will therefore be retained, although self-seeding of the species will be carefully managed.

Horse-chestnut appears to grow well on the site and therefore it will be retained.

7.5 Reed Bed

Probably the main feature of Brundall Church Fen Local Nature Reserve is the reed bed in the centre of the site. There is no easy public access to this area of the fen and that feature will be maintained as the area can be extremely dangerous. The public will be deterred from entering the reed bed.

The reed bed will be cut on a three year rotation with half the bed being cut in the winter and the other half in the summer. Cutting will be carried out by hand in a traditional method. Cutting half the bed in winter and half in summer will encourage a diversity of species and, because the site is so wet, cutting by hand will cause less damage.

The aim will be to find a use for the cut reed so that the material is put to use rather than just discarded. Any profit made will be used to off-set the cost of management.

7.6 Path Clearance

Vegetation along pathways will be cut five times each summer and the cuttings raked off and removed. However, careful consideration will be given to the wild flowers which proliferate in places. The first cut of the year will be along the paths only. Later cuts, will go to the dyke banks.

Pathways will be kept free from overhanging shrubs and trees that may be a danger to the public.

8. Public Access

8.1 General

Within the constraints specified within this Management Plan, **free public access will be provided for people wishing to enjoy Brundall Church Fen Local Nature Reserve. The public will be expected to keep to the circular pathway provided in order to ensure their safety.** Regular events will be held, such as guided walks and craft days, to encourage use and appreciation of the site.

Land access to the site is via Church Lane and then across the railway crossing. The only other access is from the River Yare.

The parking of cars in front of the gates provided for vehicular access to the site has caused problems in the past. Such parking is both anti-social, obstructing the gates for other users, and dangerous as that is the only access for emergency vehicles to both Brundall Church Fen and Bell's Boats site where boats are moored. In addition, parking along Church Lane, higher up and closer to The Street, will cause nuisance to those properties fronting Church Lane and will cause an obstruction to vehicles wishing to pass them. It will be unfair to cause such nuisance.

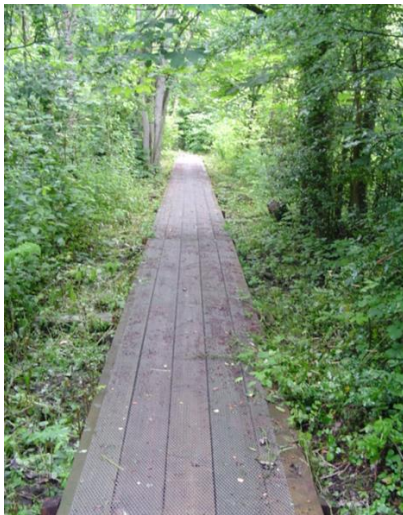
Therefore, **parking in Church Lane by people using Brundall Church Fen will not be permitted.**

8.2 Access by Contractors and Volunteer Workers

From time to time, contractors and volunteer workers will wish to access Brundall Church Fen with a vehicle carrying equipment or materials. It is not realistic to consider transporting such items from The Street to the site by any other means.

A small parking area will be kept clear of vegetation just inside and to the east of the access gate to the site for vehicular use by contractors and volunteer workers only. The parking area will be sufficient for one light goods vehicle and trailer and **will not be for use by the general public.** Contractors and volunteer workers will be expected to park their own personal vehicles within the same constraints as the general public.

8.3 Boardwalk



A timber boardwalk will be maintained as a pathway on the west of the site, providing a safe and comfortable route for pedestrian traffic. The boardwalk will have a covering of chicken wire to provide a non-slip surface.

At the time of writing this Management Plan the boardwalk is in need of major repair and such repair shall be the responsibility of Brundall Parish Council in consultation with the Broadland Tree Warden Network.

Trees will be maintained so that they do not pose a threat to the safety of people using the boardwalk.

8.4 Angling

It is recognised that the river bank in Church Fen Local Nature Reserve is regularly used by anglers. **Access to the river for angling will continue to be permitted,** but anglers will be expected not to leave rubbish such as bread bags, lunch packaging, bait packaging and milk cartons, etc on the site, taking it away with them when they leave. In addition, anglers will be expected to consider the damage being done to the river bank and to take due care to avoid such damage.

8.5 Twenty-Four Hour River Moorings

Twenty-four hour moorings will be provided, maintained and policed by the Broads Authority. They will be promoted as “quiet” moorings and visitors will be advised not to deposit rubbish.

River users will be reminded that the moorings are part of a Local Nature Reserve and as such shall not be used for loud music, parties, barbeques or fires which may seriously damage to the fen and pose a threat to the wildlife.

Brundall Parish Council shall reserve the right to close the moorings to any people guilty of anti-social behaviour.



9. Wet Areas

9.1 Dykes

The dykes on the site are recognised as an extremely important feature. **All dykes will be kept free from overhang by vegetation and will be periodically cleared. However, under no circumstances shall dykes be dredged as it is important to conserve the silts.**

9.2 Sluices

The sluices from the site to the River Yare are broken and shall NOT be repaired, although they will be kept clear of debris, thereby allowing water levels on the site to fluctuate as Brundall Church Fen is one of the few remaining sites in the area to remain as a natural floodplain having fluctuating water levels. Such fluctuation of the water levels, whilst they may result in the site becoming impassable for several weeks each year, are an essential and natural way of cleansing the site and preventing stagnant water in the dykes.

10. Wildlife

10.1 Bird and Bat Boxes

Such boxes are not considered necessary in Brundall Church Fen Local Nature Reserve as there are numerous natural nesting opportunities.

10.2 Otter

There have been several confirmed sightings of otter and water vole on the site. **Every effort will be made to maintain the habitat so essential for otter and water vole, including the building of artificial holts if considered necessary.**



10.3 Other Wildlife



Fox and Chinese water deer are among the numerous wildlife species regularly using the site. **Maintaining and enhancing the conservation value of the site will be paramount.**

11. Public Information _____

Public information on Brundall Church Fen Local Nature Reserve will be freely provided. Such information will include details of the objectives for the site and a plant list.

An information board will be erected just inside the access gate to the site and will include a simple map with details of the main points of interest.

An information board will be erected close the mooring area on the river bank and will include the same information as the board at the access to the site, but will also give details of access to The Street for shops, public houses and other amenities available in the village.

An information leaflet will be designed and published. It will be made available free of charge to anyone interested via the library, shops, etc and will include a simple map and details of the outstanding features of the site.

12. Education _____

Efforts will be made to encourage environmental education on the site through hosted visits by local schools and youth groups.

13. Monitoring _____

Regular monitoring of the site is essential to ensure that the correct management is being carried out. As a result, **regular biological recording of the site will be carried out in order to determine whether management has been effective and has achieved the desired goals.**

This Management Plan will be amended as required in accordance with the results of the biological monitoring carried out and experience gained.



Brundall Parish Council and the Parish Tree Warden were awarded the coveted Campaign for the Protection of Rural England (CPRE) Norfolk Award for 2008 in recognition of the creation of Church Fen Local Nature Reserve