

## 2. GENERAL DESCRIPTION

### 2.1 General Information

#### 2.1.1 Location and Site Boundaries

<b>Name:</b>	Trinity Broads Ormesby, Rollesby, Ormesby Little, Lily and Filby.
<b>District:</b>	Parishes of Ormesby St Margaret, Ormesby St Michael, Rollesby, Fleggburgh and Filby.
<b>Region:</b>	Great Yarmouth
<b>County:</b>	Norfolk
<b>Planning Authority:</b>	Broads Authority
<b>Open Water Area:</b>	1.65 km <sup>2</sup>
<b>Catchment Area:</b>	36 km <sup>2</sup>
<b>National Grid Reference:</b>	TG 460 150

#### 2.1.2 Land Tenure

ESW own the majority of the broads and the broad-shore with the exception of two areas on Ormesby Broad: one on the north-shore and the second on the south shore of the eastern arm. There is also a section of broad-shore on the south-west of Filby Broad that belongs to the Billockby & Burgh Doles Poores' Trustees (see Appendix 1, Map 1c).

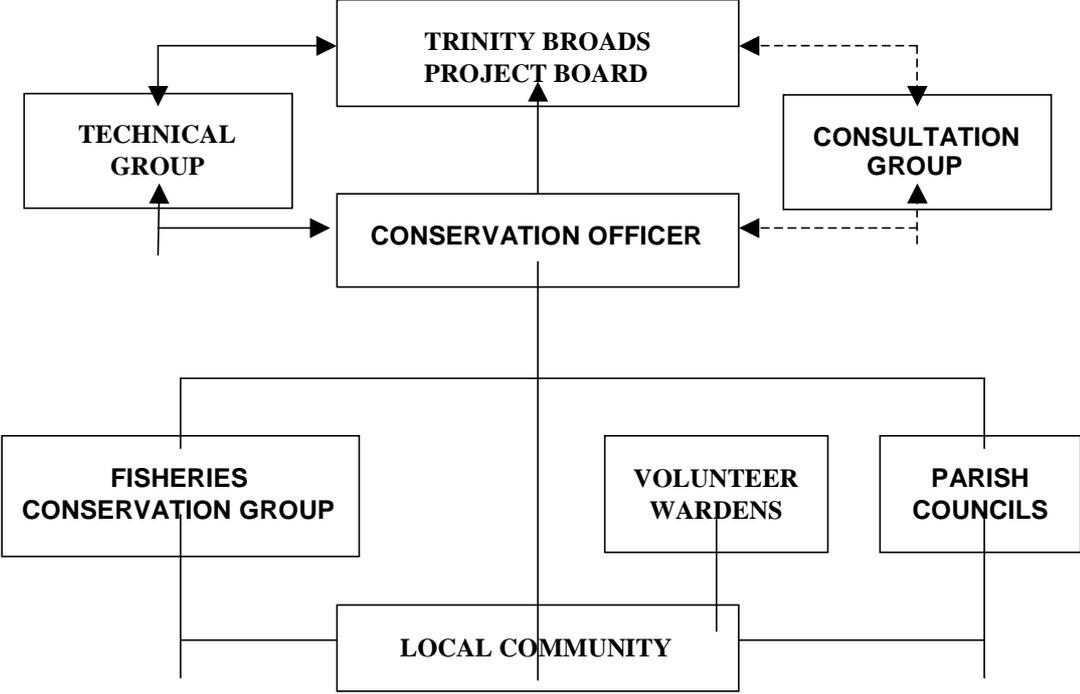
#### 2.1.3 Management / Organisational Infrastructure

ESW abstract water from Ormesby Broad for public supply to the Great Yarmouth area and surrounding villages. The management of the Trinity Broads is implemented and funded through a partnership between ESW, the Broads Authority, Environment Agency, and Natural England. The Trinity Broads Project currently employs a full time Catchment Officer and a part time Filby Warden to patrol and clean the Filby car park. Trinity Broads Voluntary Wardens are recruited to assist with the management of the area. The partnership manages additional areas of privately owned land adjacent to the broads through management agreements. All management and research activities are approved by the Trinity Broads Project Board and where appropriate, consented by Natural England and / or the Environment Agency.

A Memorandum of Agreement (see Appendix 6) exists between the Broads Authority, ESW Environment Agency and Natural England. The Trinity Broads Project Board provides a forum for discussion. The group steers the management of projects identified in the management plan and organise budgets. The Trinity Broads Technical Group provides practical and technical expertise regarding research and monitoring projects and informs the decision making process of the Project Boards.

The Trinity Broads Consultation Group is made up of local community stakeholders and interest groups and inputs into the management process. Local expertise and knowledge from the Fisheries Conservation Group, volunteers wardens and local community can feed into the Consultation Group or to the Trinity Broads Catchment Officer and can contribute to the decision making process (see figure 1).

Figure 1 - Engagement of Partners and Stakeholder Infrastructure



## 2.1.4 Zonation

This management plan covers three SSSIs i.e. Trinity Broads, Hall Farm Fen, Hemsby and Burgh Common and Muckfleet Marshes (see Appendix 1, Map 5). Natural England has divided up these SSSIs into smaller units, and assessed each compartment to determine its nature conservation condition status. There are six reportable condition categories: favourable; unfavourable recovering; unfavourable no change; unfavourable declining; part destroyed and destroyed. The UK Government's Public Service Agreement (PSA) target is to have 95% of the SSSI area in favourable or recovering condition by 2010. Condition assessment is used to assess the condition of designated features on each unit/ SSSI. A series of UK agreed targets are used to assess the quality of each unit/ site. Where a SSSI is also a European site, as is the case at this site, this assessment is an important indicator of the contribution the site makes to the Favourable Conservation Status of the habitats and species it supports. Favourable Conservation Status is the condition at which a natural habitat or species listed in the Annexes of the EU Habitats Directive or Birds Directive is capable of sustaining itself in the long-term across its natural range.

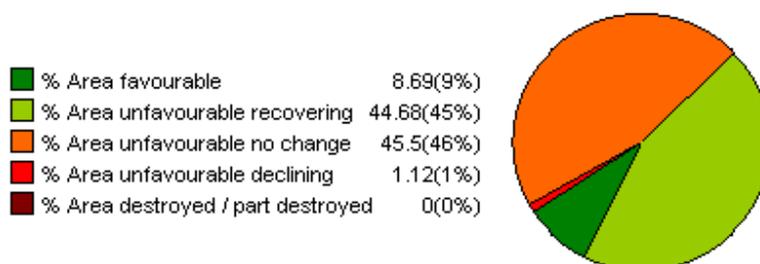
### Trinity Broads SSSI

The table below shows the area of the units in the Trinity Broads SSSI, and the condition status of each unit. The graph that follows shows the proportion of each condition status. At the last assessment in 2002 53.37% of SSSI was favourable or recovering.

Unit	Hectares	Main Habitat	Condition status
1	35.46	Broadleaved, mixed woodland	Unfavourable recovering
2	1.23	Broadleaved, mixed woodland	Unfavourable recovering
4	52.95	Fen, marsh & swamp	Unfavourable recovering
5	3.54	Fen, marsh & swamp	Unfavourable declining
6	2.85	Broadleaved, mixed woodland	Favourable
7	1.49	Broadleaved, mixed woodland	Favourable
8	2.97	Broadleaved, mixed woodland	Unfavourable no change
9	1.51	Broadleaved, mixed woodland	Favourable
10	20.60	Broadleaved, mixed woodland	Unfavourable no change
11	8.42	Broadleaved, mixed woodland	Favourable
12	2.08	Broadleaved, mixed woodland	Favourable
13	3.58	Broadleaved, mixed woodland	Favourable
14	6.78	Broadleaved, mixed woodland	Favourable
15	0.67	Broadleaved, mixed woodland	Unfavourable no change
16	1.54	Broadleaved, mixed woodland	Unfavourable no change
17	3.56	Broadleaved, mixed woodland	Unfavourable no change
18	0.26	Broadleaved, mixed woodland	Unfavourable no change
19	0.65	Broadleaved, mixed woodland	Favourable

20	52.25	Standing, open water	Unfavourable recovering
21	26.25	Standing, open water	Unfavourable no change
22	8.20	Standing, open water	Unfavourable no change
23	37.95	Standing, open water	Unfavourable no change
24	40.00	Standing, open water	Unfavourable no change

Trinity Broads SSSI condition status



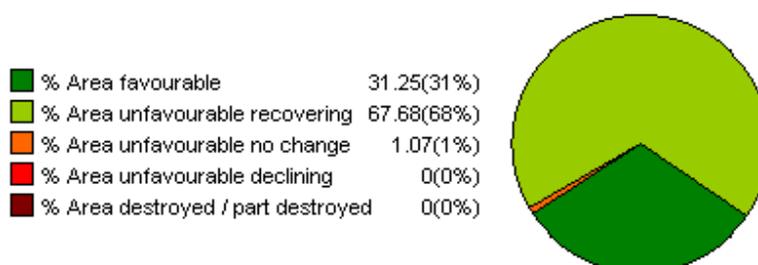
Burgh and Muckfleet Marshes SSSI

Common

The table below shows the area of the units in the Burgh Common and Muckfleet Marshes SSSI, and the condition status of each unit. The graph that follows shows the proportion of each condition status. At the last assessment in 2003-05 98.93% of SSSI was favourable or recovering. The remaining small area in unfavourable condition refers to Little Broad. A restoration project during 2007 will bring this area into Favourable condition.

Unit	Hectares	Main Habitat	Condition status
1	22.36	Standing, open water and canals	Favourable
2	58.48	Fen, marsh & swamp	Unfavourable recovering
3	7.83	Standing, open water and canals	Unfavourable recovering
4	1.25	Standing, open water and canals	Unfavourable recovering
5	9.10	Fen, marsh & swamp	Unfavourable recovering
6	11.31	Fen, marsh & swamp	Favourable
7	4.18	Standing, open water and canals	Favourable
8	5.31	Standing, open water and canals	Unfavourable recovering
9	1.30	Standing, open water and canals	Unfavourable no change

Burgh Common and Muckfleet Marshes SSSI condition status



### Hall Farm Fen SSSI

The table below shows the area of the unit in the Hall Farm Fen SSSI, and the condition status of it. At the last assessment in 2004 100% of SSSI was recovering.

Unit	Hectares	Main Habitat	Condition status
1	9.47	Fen, marsh & swamp	Unfavourable recovering

In summary, Hall Farm Fen and Burgh Common and Muckfleet Marshes SSSIs will meet the PSA target, but a large part of the Trinity Broads will not achieve favourable or recovering condition. This management plan seeks to address this.

#### **2.1.5 Site Infrastructure**

##### Bridges and Highways

The Trinity Broads have two major highway bridges over them: on the A149 at Rollesby and A1064 at Filby. Norfolk County Council Highways Department are responsible for the maintenance of these structures.

The old highway bridge at Rollesby Bridge is due for demolition by Norfolk County Council Highways Department and will be replaced with a timber structure by ESW's Estate Department.

##### Parish Staithes

The Parishes of Ormesby St Margaret, Ormesby St Michael, and Fleggburgh have Parish Staithes but there is no facility other than bare ground.

##### Jetties

Five jetties are located in the area at: Ormesby Water Works (Ormesby St Michael), Sportsman's' Staithe (Ormesby St Michael); Rollesby Tea Rooms<sup>1</sup> (Rollesby); Eels Foot Inn, (Ormesby St Michael) and Filby Bridge Restaurant (Filby).

##### Sailing Facilities

Rollesby Sailing Club lease land from ESW on Rollesby Broad for their sailing base. The site consists of a clubhouse, boat yard and pontoons. The site is managed by the club with some maintenance responsibilities held by ESW.

##### Norfolk County Council (NCC) Outdoor Activity Centre, Filby<sup>2</sup>

The site is owned by NCC but a lease agreement exists with ESW for access to the water. A jetty and slipways area is currently being used as a Parish Staithe for Filby. A lease agreement is in place between the Filby Parish Council and ESW for access to the Broads. The jetty is maintained and insured by Filby Parish Council.

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<sup>1</sup> Jetty to be replaced when the tea rooms are constructed.

<sup>2</sup> Currently used by Norfolk Schools Sailing Association (NSSA). Under review of future occupation.

## Car Parks

Rollesby Bridge car park (situated on the A149 between the villages of Rollesby and Ormesby St Michael) is owned by Ormesby St Michael Parish Council and leased to ESW. The Broads Authority has made improvements to the amenity areas on both sides of the bridge in this location, through the landscape improvement project (1998). This included the construction of four fishing platforms on the broad-shore (one platform is suitable for use by people with limited mobility), and also landscaping, installing furniture and regulating parking locations.

Filby Bridge car park (on the A1064 between the villages of Fleggburgh and Filby) is owned by ESW and leased to the Broads Authority, who have responsibility for its management and maintenance. From this car park, a boardwalk, bird hide, and walkway over Filby broad can be accessed. Further improvements to both car parks are planned.

### Filby Walkway and Boardwalk

This community project walkway has been constructed adjacent to the broad-shore and A1064 at Filby. It is insured and maintained by Filby Parish Council with practical assistance from the Broads Authority and financial support from ESW. It provides an opportunity for visitors to walk over the broad and to fish from the fishing platforms. Public access by foot along the edge of the Trinity Broads is limited to the boardwalk at Filby Bridge car park. This site is popular during the summer months. The walk leads to a bird hide, which overlooks Ormesby Little Broad (see Appendix 1, Map 3).

## **2.1.6 Map Coverage**

<b>Publisher</b>	<b>Map type</b>	<b>Map reference</b>	<b>Scale</b>
Ordnance Survey:	Landranger	Sheet 134	1: 50 000
	Outdoor Leisure	Sheet 40	1: 25 000
Soil Map of Norfolk:	Great Yarmouth	Sheet 162	1: 50 000
		1st edition 1838 <sup>3</sup>	1" to a mile
		1st edition 1884	6" to a mile
		2nd edition 1907 <sup>4</sup>	6" to a mile

### **2.1.6.1 Photographic Coverage**

<b>Organisation</b>	<b>Type</b>	<b>Date</b>	<b>Scale</b>
ADAS	Aerial photographs	26/05/95	1: 10000
NRSC	Aerial photographs	18/10/94	1: 25000
Broads Authority	Ground photographs- slides	1997 - 2004	
Essex & Suffolk Water	Aerial – CD-Rom	1998	1: 5000

<sup>3</sup> Archaeological Department, Castle Museum, Norwich.

<sup>4</sup> Central Library, Forum, Norwich

Broads Authority	Aerial digital photographs	2000	1:10000
Broads Authority	Aerial digital photographs	2004	1:10000

## 2.2 Environmental Information

### 2.2.1 Physical

#### Climate

The climatic conditions of the Trinity Broads area are as follows:

Variables	Measurement	Mean
Temperature (° C) <sup>5</sup>	Annual daily mean variation	6 – 13
	Daily mean variation (high summer)	11 – 22
	Daily mean variation (mid winter)	1 – 7
Precipitation (mm)	Annual mean	637mm
Evapotranspiration (mm)	Annual mean potential	626mm
	Annual mean actual	517mm

#### Hydrology

The Trinity Broads surface water catchment area is approximately 36km<sup>2</sup>. Open water covers an area of 1.65km<sup>2</sup>, which is separated accordingly:

- Ormesby Broad 52.25 ha
- Rollesby Broad 26.25 ha
- Lily Broad 8.20 ha
- Ormesby Little Broad 37.95 ha
- Filby Broad 40.00 ha

#### **Inputs:**

- Direct precipitation
- Inflow from a number of dykes (see Appendix 1, Map 2)
- Groundwater (either as direct sping inflow and / or bankside seepage)
- Consented trade effluent discharge from ESW's Ormesby Water Treatment Works.

#### **Outputs:**

- Muckfleet Sluice
- Agricultural abstractions
- Public water supply abstraction
- Evaporation
- Transpiration from plants

The Trinity Broads drain into the Muckfleet Channel, a narrow channel, 3.2km long and <10m wide. A sluice is located in the Muckfleet and maintains water levels in the Trinity Broads for both conservation and public water supply and prevents flooding lower-lying

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<sup>5</sup> Martin George 1992

land downstream of the sluice. The level of the Muckfleet Channel is lower than the River Bure and therefore water has to be pumped into the river at the Internal Drainage Board's Stokesby pumping station (see Appendix 1, Map 2).

**Geology**

A review of the catchment solid and drift geology was undertaken by the British Geological Survey in 2001 (Hudson et al, 2001). The general sequence composition of deposits of the Trinity Broads is as follows:

<b>Formation Layer</b>	<b>Lithology</b>
Lacustrine Mud	Silty clay
Breydon Formation	Peat, silt and clay
Cover silt	Silt
Head	Clay, silt, sand and gravel
Lowestoft formation	Till, pebbly, silty, sand clay
Corton formation	Sand and gravels; Till, pebbly, silty, sand clay
Crag group	Sands and gravels
Upper chalk formation	White limestone

## 2.2.2 Biological

### Flora

**Aquatic Flora:** Limited areas of open water support the nationally rare holly-leaved naiad (*Najas marina*). Other notable species include flat-stalked pondweed (*Potamogeton friesii*) and hairlike pondweed (*Potamogeton trichoides*). Stoneworts (charophytes) are present in limited areas of a few of the broads. Water soldier (*Stratiotes aloides*) is present in a single ditch within the site. For more information on aquatic species see Broads Authority Aquatic Macrophyte Reports.

**Marginal Swamp and Fen Vegetation:** Extensive fringes of marginal vegetation dominated by common reed (*Phragmites australis*) are present around the broads. Two notable, nationally scarce species occurring in reed margins are milk parsley (*Peucedanum palustre*) and cowbane (*Cicuta virosa*). Other notable species include greater spearwort (*Ranunculus lingua*) and marsh thistle (*Cirsium palustre*). The margins also support areas of saw sedge (*Cladium mariscus*), reedmace (*Typha latifolia*) and true bullrush (*Scoenoplectus lacustris*).

**Woodland:** The landscape and woodland areas are dominated by alder (*Alnus glutinosa*) carr with a variety of willow/sallow (*Salix spp.*) present. Oak (*Quercus robur*) and downy birch (*Betula pubescens*) dominate the drier areas. The majority of woodland has been surveyed using the National Vegetation Classification method and classified as either W5 (*Alnus glutinosa* – *Carex paniculata*) or W6 (*Alnus glutinosa* – *Urtica dioica*) woodland. For more information on woodlands see Trinity Broads NVC (National Vegetation Classification) Woodland Survey (1998).

### Fauna

**Birds:** The structural diversity of the woodland and vegetated margins creates a variety of habitats for foraging and nesting birds. The species list includes: woodcock (*Scolopax rusticola*), bittern (winter visitor) (*Botaurus stellaris*), grey heron (*Ardea cinerea*), cormorant (*Phalacrocorax carbo*), marsh harrier (*Circus aeruginosus*), sedge warbler (*Acrocephalus schoenobaenus*), reed warbler (*Acrocephalus scirpaceus*), kingfisher (*Alcedo atthis*), and Cetti's warbler (*Cettia cetti*).

The open areas of water support nationally important numbers of wintering wildfowl including pochard (*Aythya ferina*), tufted duck (*Aythya fuligula*), shoveller (*Anas clypeata*) and smew (*Mergus albellus*). Small numbers of teal (*Anas crecca*), gadwall (*Anas strepera*) and goldeneye (*Bucephala clangula*) are regularly recorded during the winter period (Rundle-Palmer and Madgwick, 1996). The open areas of water also support nationally important numbers of breeding wildfowl including pochard (*Aythya ferina*), tufted duck (*Aythya fuligula*) and shoveller (*Anas clypeata*).

**Invertebrates:** The Trinity Broads support two nationally rare moths: the rush wainscot (*Archanara algae*) and balsam carpet (*Xanthoroe biriviata*), and one nationally rare dragonfly, Norfolk Hawker (*Aeshna isosceles*). The endangered swallowtail butterfly (*Papilio machaon*) has been recorded in this area. Two Red Data Book (RDB) flies have been recorded, *Dolichopus laticola* and *Hydrophorus viridus*, along with the rare shiny ramshorn snail *Segmentina nitida* and a good population of Desmoulins whorl snail

(*Vertigo moulinsiana*). For more information on invertebrate research see Jackson (1999).

**Mammals:** Between 2000-2005 there have been several casual records of otter (*Lutra lutra*) sightings. Otter spraints have been regularly detected under the main highway bridge at Rollesby (A149) since January 2000. The open water and marginal reed-bed is suitable habitat for otter, and there is sufficient food i.e. fish to support a viable population.

The Trinity Broads supports colonies of six species of bat: Daubenton's (*Myotis daubentonii*), Pipistrelle (*Pipistrellus pipistrellus and pumaeous*), Noctule (*Nyctalus noctula*), Serotine (*Eptesicus serotinus*) and most recently discovered Nathusius's pipistrelle (*Pipistrellus nathusii*). For more information see Broads Authority Broadland Bat report (1998 - 2000).

One of the UK's largest known Daubentons' nursery colonies exists underneath the "Patterson" Treatment Plant at ESW's water treatment works at Ormesby. Roost count numbers, temperature and humidity survey data exists from 2002. Radio tracking surveys were undertaken and reports exist for summer period 2002 and 2003.

Little is known about the small mammal population but water shrews and water voles have been recorded. A programme to monitor for mink across the catchment was started in 2004, where local landowners check mink rafts and report on any sightings. Action can then be taken to control mink. This is necessary to safeguard the water vole population and wetland breeding birds.

## 2.3 Culture and Tradition

The Broads were created by medieval peat digging, largely for fuel, which flooded as sea-levels rose. The adjacent fen habitat is the product of human management i.e. reed cutting and fen mowing, where the products were used for thatching, animal bedding and other uses.

More recently the Trinity Broads have supported a low level of water based recreational activity. The area has historically been used for wildfowling and angling. Other land use includes grazing on areas of fen meadow, mowing of marginal open fen vegetation, coppicing, water abstraction and drainage.

## 2.4 People

### 2.4.1 Local Communities and Stakeholders

There are four villages adjacent to the site, namely Filby, Fleggburgh, Ormesby St Michael and Rollesby. Some people that live here have rights to access the broad by boat from their properties, others fish on the broads, others have moved into the area because of the landscape value, others depend on the Broad for their income.

The Trinity Broad Consultation Group consists of representatives from many organisations, which are listed in Appendix 6. The area is also important for visitors and tourists.

### 2.4.2 Access and Tourism

#### Boating

The landowners, ESW, regulate boating access, through consultation with the other project partners, considering the sensitive nature of the broads.

There are three small-scale rowing boat hire outlets currently operating. Boats are used for angling and pleasure rowing. Two of the outlets are controlled and licensed by ESW. These are located at Sportsman's Staithe and the Eels Foot Inn, both located at Ormesby St Michael. There are three private outlets located on Ormesby Broad, Rollesby Broad and at Filby Bridge Restaurant. These premises have private fishing rights. However only the outlet at Filby Bridge Restaurant is currently operating<sup>6</sup> (see Appendix 1, Map 3). The boats are in use throughout the year. During the winter months the boats are used mainly for pike fishing. To date although the potential exists for approximately 130 rowing boats to be on the broads at the same time, only a maximum of approximately 20 boats are actually in use.<sup>7</sup> See Appendix 2: List of Properties, Clubs and Business with Access to Trinity Broad.

Currently there are approximately 28 properties/ organisations with rights of access onto the Broad. Of this number 8 have a licence agreement with ESW and 16 have private rights stipulated in their property deeds. The remaining 4 are the parish staithe.

To reduce the risk of pollution, the use of petrol outboards is not permitted on the Trinity Broad, a restriction which is upheld by the majority of Broad-users. The use of electric outboards is accepted.

#### Angling

Angling is carried out either from private hire boats or from the broad-shore where the activity is restricted to fishing platforms at Rollesby and Filby. Between 15 March and 15 June each year the Environment Agency's Angling Closed Season is enforced by Agency Water Bailiffs (see Environment Agency, 1997).

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<sup>6</sup> This statement is correct as of August 2006.

<sup>7</sup> Exact calculations are difficult to ascertain because some staithe do not have a definite restriction on numbers.

### Eel Fishing

ESW own the Eel Fishing Rights on the Trinity Broads. They are leased to a private individual on an annual basis. This is subject to licensing by the Environment Agency, outlining type and number of nets to be used.

## Sailing

The following rights and agreements regulate those permitted to sail on the broads:

- Private rights to launch sailing craft stated in landowners' property deeds.
- Parish Common Rights.
- Licensing and lease agreement with ESW.

Rollesby Sailing Club has a lease with ESW, which restricts the total number of members to 250. Only 50 sailing craft are permitted to use the broad at one time. Sailing takes place mainly at weekends. Racing is very popular and the club runs a monthly Eels Foot Race. This is restricted to Sundays between November and the end of March.<sup>8</sup>

Under the current lease at Norfolk County Council's Outdoor Activities Centre activity is confined to Filby Broad. The base provides tuition for sailing and canoeing and has a fleet of around 100 assorted craft. The terms of the lease restrict the number of boats using the broad to an overall maximum of 50. This number is reduced to 35 boats between 15 March and 15 June inclusive.

## Model Yachts

The Norfolk Model Yacht Club have a lease with ESW to sail radio controlled model yachts on Ormesby Little Broad one Sunday a month for their activities. The craft are launched from the private jetty at Filby Bridge Restaurant (see Appendix 1, Map 3). The model yachts can only be powered with electric engines or motors and on no account with oil or petrol.

## Access

Public access by foot is available at three main locations:

- The boardwalk at Filby Bridge car park. The walk leads up to a bird hide, which overlooks Ormesby Little Broad.
- Filby Broad-shore Walkway lies adjacent to the A1064 and Filby broad-shore. The walkway was designed to provide access for wheelchairs, anglers and birdwatchers etc.
- Rollesby car park allows access to the broad-shore overlooking Rollesby broad. There are four fishing platforms on the broad-shore. One platform is wheelchair accessible.

## Shooting

ESW owns the shooting rights on the Trinity Broads broad-shore. They are leased out to three separate shoots. Private landowners retain their own shooting rights on their own land. Shooting activities are regulated and require consent by Natural England.

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<sup>8</sup> Eels Foot Race runs between Rollesby and Ormesby Little Broad.

### **2.4.3 Interpretation Provisions**

A code of practice leaflet has been produced with information about:

- Conservation
- Wintering and breeding bird refuge zones
- Public amenities and facilities
- Safety
- The Countryside Code

Interpretation panels are in place at Rollesby car park, Filby car park, Filby Bridge Restaurant, Filby Walkway, Sportsman's Staithe (Ormesby), the Eels Foot Inn (Ormesby). Interpretation is due to be installed at Rollesby Broad Sailing Club. A project to assess interpretation was undertaken by ESW (Lorenc, 2002). This document highlights the detail and provision of interpretation required in the Trinity Broads.

### **2.4.4 Educational Use**

Education facilities are currently limited on site, because there is no visitor centre, insufficient toilets and minimal access by foot. However, the area has potential for demonstrating nature conservation management and the principles of freshwater ecology, which could be based around suitable land based access at Filby or Rollesby car parks. Local primary schools make use of the Trinity Broads for subjects ranging from nature studies to art.

### **2.4.5 Research Use**

The Ormesby Broad biomanipulation project was initially undertaken as a demonstration study under EC LIFE Project (LIFE 92-3/UK/301) in partnership with the Broads Authority, Environment Agency, ESW and English Nature. Biomanipulation and associated monitoring will continue until a point when the Trinity Broads SAC site has reached Favourable Condition Status (see Section 2.1.4) and management is sustainable in the long-term.

Detailed hydro-geological, hydrological and hydro-ecological investigations of the Trinity Broads system have been undertaken by ESW through its Asset Management Plan funded National Environment Programme (NEP). This comprises a series of investigations approved by the Environment Agency and Natural England to assess potential adverse impacts on the FCS of the European species and habitats. These investigations may, in part, be used to inform the Environment Agency's Review of Consents (RoC) process whereby abstraction licences and discharge consents will be reviewed and either renewed, modified or revoked.

Broads Authority monitors the wintering and breeding wildfowl as part of the British Trust for Ornithology's Wetland Bird Survey (WeBS). Broads Authority's Broadland Bat Survey includes the Trinity Broads as a study area.

## **2.5 Landscape**

The landscape of the Trinity Broads is one that gives the visitor to the water a sense of isolation and wilderness. Throughout the Trinity Broads the fringing reed-bed with a woodland backdrop is very important to the setting and appearance of the individual

water bodies. Mature alder carr and oak woodland is an integral part of this landscape helping to screen villages and the arable land beyond.

The appropriate management of the reed-beds is therefore of great importance and integral to maintaining and enhancing the landscape. Therefore, the clearance of invasive scrub will be needed to retain and enhance the reed-beds whilst maintaining the belts of alder carr on the land-ward sides.

## 2.6 Bibliography

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