

**From:** [REDACTED]  
**Date:** 04 December 2014 14:16  
**To:** [REDACTED]  
**Subject:** Re: Catfield - Brasca Draft Response

#### Catfield Abstraction Consultation

1. The Broads Reed & Sedge Cutters Association (Brasca) represents the interests of self employed Cutters working in the Broads. Reed and sedge cutting remains the only true sustainable management undertaken in the Broads

2. This response is based mainly on the comments from those Cutters who work on or close to sites at Catfield. It also draws on the practical experience of Cutters who work on other sites in the Broads where there is part water level/flow control.

3. Brasca does not wish to make any criticism of the various authors who contributed reports throughout the consultation process, however, it is assumed rightly or wrongly that the authors are being paid for their opinions directly or indirectly.

This response by Brasca is made on a completely voluntary basis without any payment or expense received from any other party.

4. We feel that there has been insufficient references to the historical management of the area, the changes to management including water levels and flows, management methods and changes to water structures/sluices. Some local research to confirm past management and water levels etc would have been of considerable interest and benefit in the planning of today's management on the site.

a. Catfield Fen, Sutton Fen and the surrounding areas were once managed, like the majority of the the Broads, far more intensely in the past than today. Apart from reed and sedge production, areas were cut and managed for marsh hay, marsh litter and firewood. There appears to be few references as to how this historical management was undertaken but the cutting method, regardless of the crop, was undertaken with a scythe or hand hook. The use of a hook was mostly restricted to cut reed where boggy ground conditions prevented a scythe being used. A few Brasca members still use a scythe today to mow boggy sedge or reed areas but most of the cutting is now mechanical.

b. The areas of reed could be cut with a scythe when the sites were shallow flooded (2" to 3" deep) but not if water levels were deeper. This is because mowing in deeper water makes the reed stems wet and would result in mildew forming if the stems were tied into bundles. Another reason why cutting in deeper water was avoided was because of the need to cut as low as possible to capture the thickest and hardest part of the stems. Reed cutting in the past required similar conditions to that required today. Ideally the reed bed should be free from surface water during the December to late March/early April harvesting period. On sites with conservation interests and the ability to control water levels, shallow flooding can be introduced as soon as reed cutting is completed. Cutters consider it unwise to introduce early shallow flooding in the winter months, say before late February/early March, but to use the winter rainfall as a means of flushing the reed bed system if river water levels permit an effective drain.

c. Sedge cutting times have been changed in the Broads to accommodate concerns for nesting birds. Brasca does support this stance, however, historically it is probable that sedge cutting started in mid April and carried on through to late September or even early October. It is worth pointing out that it is possible to cut sedge during any month of the year using a scythe because, unlike reed, there is no need to cut as low as possible. Again, sedge requires similar water level conditions to that needed to harvest reed. Today, most sedge is harvested using a light weight pedestrian mower ( eg BCS, Grillo or Bugher machines) and there is a real need to harvest in as dry conditions as possible but cutting is often undertaken throughout the Broads on shallow flooded or sites which have a naturally functioning water

on / water off regime.

d. Marsh Hay /Marsh Litter.

Historically, this was probably undertaken at similar times as sedge cutting ie from May to early October with the majority of the hay making done during the June/September period to take advantage of the warmer temperatures needed for effective drying . Again cutting was done using a scythe so water levels on the marsh's surface were very important. It would have been pointless to mow the hay or litter crop and let it lay in water. Drying was only possible if the stubble itself and the majority of the marsh surface remained dry. On sites where there was effective water level control then the process was made easier. Unlike reed and sedge, marsh hay and marsh litter was not tied into bundles, bunches or bales on the actual marsh. (String was in fact only used in reed and sedge cutting relatively recently - Brasca has retired members who recall tying bundles of reed using green reed owing to the shortage and high price of string prior to the 1950's. Most hay was in fact tied using wire and this would not have been possible on a marsh). Marsh hay and marsh litter was collected loose and carried off the sites by hand to be loaded into lighters using the extensive dyke system.

Older Brasca members recall using a similar method in the past to remove sedge on some sites in that a stretcher arrangement (known locally as "poling off") was carried by two people. Again, walking back and forth across a deep flooded marsh would not have been the preferred method when carrying off marsh hay or litter.

5.Regardless of just what was being harvested it should be concluded that every effort had to be made to control water levels on the sites where this was possible. On the majority of sites in the Broads there was and still is today a free flow or natural functioning water regime. It will be left to historians to agree just when water level control became possible at Catfield Fen but when it did then there must have been considerable management advantages. This, however, came at some price in that it probably altered the pace of natural change which exists on all sites in the Broads, benefiting some species and effecting others. For landowners at the time, these changes were seen as progression, improvements and increased land efficiency with the driving force being financial. Long term sustainability and conservation were not considered but those who worked on the site probably would have seen very slow but steady changes.

6. Water level Control:

a. The consultation papers give no clear information as to who was responsible for the installation of the network of sluices. Brasca members can recall some of these sluices being installed, replaced and/or modified but there really should be some thought given to compiling a report on water control. Were these additions consented by Natural England? What was the purpose or aim? Did or does the site have a prescribed water level and water flow management plan. It is understood that it is not possible to access certain public funded management plans covering part of the area. Without more openness and co-operation then it may be impossible to ascertain the causes of the problems and to make effective suggestions to try to remedy the situation.

b. Brasca members inform that the main change at Catfield occurred after the wet summer in 2007. We do have rainfall records for Somerton and appreciate the local variation but 2007 was, to say the least, unusual. April 2007 brought hardly any rain at all for East Norfolk. Only 0.25mm of rainfall was recorded at Somerton during this April. This effected all of the Broads' fens with slow growth during the start of the critical growing period. May 2007 was the complete reverse with a record 112mm of rainfall. (The wettest May recorded so far this century) June 2007 continued with another month's record breaking rainfall of 135.75mm. The fens went from almost drought conditions in April to flood throughout May and June. At Catfield, the local Cutters recall the decline of the butterfly population and, after 2007, a decline in milk parsley growth.

It should be clear that every site in the Broads was impacted by the spring/summer of 2007 ,however, reed beds would have generally benefited from the additional rain providing adequate water flow was in place.

c. The local Cutters inform that water levels at Catfield were in fact raised 3 years ago (2011) when, so far as they understand, the original permission from Natural England to open the sluice near the Staithe

on set times was stopped. Other written comments received mention that “the bittern has not been seen on site now for approx. 3 years”, “reed warblers definite decline, no ducks or ducklings on site, all birds very limited, frogs seem to have gone, no moorhens on site and only one grass snake seen this year (2014)”. “No bearded tits for 3 - 4 years now”. Also reported was the decline in swallowtails as the number of milk parsley plants declined.

Brasca considers that a decline in ground nesting birds can be partly attributable to predation by mink, fox, otter etc but high water levels and in particular a sudden rise in water levels which would take place in a sealed system such as Catfield are probably responsible for the sites decline in ornithological interests. A healthy reed bed should support a good bearded tit population but this does not appear to be the case at Catfield. An examination of nesting bird records for the area could have given a better insight into and when the changes took place. Prolonged periods of higher water levels have impacted the sedge growth at Catfield. It has become more stunted and sparse which may well lead to a longer cutting rotation than the present 4 years. Plant diversity amongst the sedge has also declined with the local Cutter also reporting fewer insects present during harvesting and fewer mice nests than in previous years. Catfield is the only site in the Broads where there has been a loss of sustainable management (commercial reed cutting) over the last 10 years. If there are no changes to the current high water levels, then eventually commercial sedge cutting will no longer be viable. This really is a poor advert for conservation and the Broads in general.

#### d. Conclusions:

Given the conditions needed to harvest reed, sedge, marsh hay and marsh litter, local Cutters agree that the surface water levels at Catfield were, in the distant past, managed more or less as follows;

During October/November onwards, every effort would be made to lower the sites water levels to make ready for the winter reed harvest. The object would be to use the sluices (or perhaps wind pumps?) to drain the site to get water levels off or even below marsh level if possible. This would be difficult in some years especially during heavy rainfall, however, winter E'ly winds can bring dry, cold conditions and rapid reductions in the Broads river water levels. As with any sealed system, the sluice network required considerable attention to manipulate the internal water levels.

Shallow flooding of the harvested reed bed areas probably took place as soon as possible after cutting was complete not only for the benefit of reed re growth but possibly to take advantage of some late shooting if cutting was completed during February. In dry winter/ spring periods then river water could be used to flood the site rather than to let it dry out, however, Brasca members report that water levels in the internal system rapidly rise after only moderate amounts of rainfall.

To harvest the sedge, marsh hay and litter, then the sluices permitted water levels to suit. It is probable that these sluice adjustments had to take place on a regular and almost daily occurrence and would have been done by the Cutters themselves. Apart from wanting a water level to benefit the various habitats the main desire was probably seeking a level in which the Cutters could work without having to struggle too much! This level of water control may have taken considerable time and effort to operate but it did avoid stagnation taking place as the water flow was probably almost continuous throughout much of the site.

On the 9th October 2014, Brasca ( ) visited the Catfield rond to see the recently cleaned out dyke separating Norfolk Wildlife Trust's land. Brasca had been lobbying to have the dyke cleaned out for several years as the commercial sedge bed was in decline owing to poor water flow/stagnation. The water in the cleaned out dyke was clear, fish were observed and stonewort was found growing. All good signs of a recovering healthy Broads dyke system which in turn would benefit the nearby sedge habitat. Immediately opposite this point on the internal Catfield Fen system, the dyke water was turbid and hosting a surface algae bloom. It was evident that poor water flow/water quality was responsible for such a contrast.

Brasca concludes that part of the area's decline is attributable to the lack of proper water level control and flow through out the site.

#### 7. Current Management;

Commercial reed cutting on the internal system at Catfield (Mill marsh east) ceased a few years ago around 2009. According to the local Cutter some 500 to 600 bundles were cut on a single wale (annual) basis. Changes came when water levels were raised and the poorer water flow encouraged the growth of lesser reed mace in the commercial reed. It was the decision of Butterfly Conservation not to continue with sustainable reed bed cutting as part of the site's management. Reed cutting was done using a BCS and/or Bugher machine as low as possible leaving a 2" to 3" stubble. Some areas were brush cut using a Stihl brush cutter leaving shorter stubble.

During a commercial operation, only the crop residue or litter would be burnt in piles on site but with non commercial or longer rotational cutting the volume of burnt material is greatly increased. Longer rotational cutting and burning now appears to be the standard management on site. This is probably also the case on the areas which were once managed for marsh hay and litter.

Some conservation bodies object to commercial cutters burning reed/sedge litter on some sites on the grounds that the ash residue increases nutrients, however, it can be assumed at Catfield Fen that nutrient addition is not a problem since there is now far more burning on this site than took place before. It does, however, demonstrate that there are different practices regarding burning vegetation in the Broads and it does really vary from site to site.

Reference has been made to the use of different reed cutting machinery used at Catfield. Commercial cutters in the area all use lightweight BCS or Grillo machines which weigh approx. 110 Kgs max. (depending on model) whilst the Reed Mower Binder in current use to carry out reed bed management at Catfield is nearly 4 times as heavy ! ( The Lombardini LD450 Diesel 9HP Reed Mower Binder weighs 435 kgs.) These larger machines are fine on the correct ground conditions but can compact wet peat surfaces. In the Broads they are used extensively by commercial cutters to harvest reed on the clay based ronds alongside the lower reaches of the rivers. Needless to say, it would not be the machine of choice by several commercial cutters who harvest reed in the Catfield area but for a non sustainable, cut & burn, long rotation, public funded management operation, it can be understood why this particular reed cutting option or choice was taken as it is the only machine available which cuts and ties reed thus making it far easier to throw the harvested material straight on to a fire! It should also be pointed out that for non commercial reed bed management there is no need or requirement to cut as low as possible unless of course this is stipulated in the management plan covering the site and this is not possible to verify without sighting the document.

Another important management issue is a reaction to higher water levels and boggy conditions in that this can lead to a machine operator deliberately holding the cutter bar higher to avoid causing flood damage (drowning) of reed / sedge stems and to make the cutting operation easier. This in turns results in the accumulated litter/leaf build up remaining undisturbed which over time restricts water flow across the site, promotes stagnation and very slowly increases the height of the marsh/reed/sedge bed surface. A good water on/water off flow helps to breakdown any litter accumulation or build up but higher water levels with poor flow do not.

Brasca concludes that the relatively recent changes in management methods have together with poor water flow contributed yet further to the area's decline.

#### 8. Other influences;

Brasca noted the comments on the site's hydrology and in particular the following three references;

- a. "These figures suggest that Crag groundwater is able to flow directly into the peat at the eastern margins of Catfield Fen where the underlying clay layer is THOUGHT TO BE thin or not present etc etc."
- b. "That the clay layer is BELIEVED TO BE etc etc"
- c. "The fen compartments between the dykes APPEAR TO BE largely rainfall fed etc etc".

It is reasonable to concluded that, given the importance of hydrology to a fen site , one cannot make a

definitive conclusion based on a process which is "thought to be", "believed to be" and "appear to be". Is it not justified to state that as regards the hydrology further investigation to produce scientific evidence is needed. It is a great pity that all parties and interests appear not to have taken the time to meet on site and discuss these issues. One relevant piece of information regarding the site's hydrology could have been given freely by local Brasca member Andy Hewitt who, during nearly 30 years working on and around the site, soon learnt that rain water has the most influence and impact on the site. The internal water level rapidly increases after moderate rainfall.

Mention should be made of water quality issues. There are references to "due to the poor water quality of Barton Broad".

Brasca forwarded this Natural England statement to the Environment Agency [REDACTED] for comment. On the 30th April 2014, [REDACTED] (Natural England) emailed Brasca to confirm "The water quality in the Ant Valley is some of the best in the Broads. Water quality has improved significantly in recent years as many of the point sources of nutrients/sediment have been addressed" It may come of no surprise that as regards questions about water quality issues in the Broads, the answer regularly given is "It depends who you speak to". Brasca is seeking a review of Broads water quality information reporting with the hope that a more 'user friendly' method, including trends, aquatic plant surveys etc can be made available on the Broads Authority website with sampling data from the Environment Agency.

#### Other Changes/Influences;

Catfield, like many sites in the Broads, has seen a widening of the dyke system. Traditional dyke widths were from 10ft to 12ft since this width was found to be suitable for the use by lighters (both half-load and full-load sizes) which transported the fen materials from the various compartments. They were also dug by hand and probably considerable effort was required to achieve this standard width without wanting or justifying anything wider.

The widening has resulted from some conservation thinking that certain species of birds (mostly bitterns) prefer sloping dyke edges in which to feed. Also the theory that wider and deeper dykes attract and hold a resident fish population. No one has explained just how for centuries these birds survived prior to the invention of the mechanical digger. One thing is certain that the wider and deeper the dyke then the slower the water flow and in turn the water exchange is reduced.

The widening of dykes has also resulted in wider spoil banks which can also restrict water flow to and from the dyke if the spoil is deposited on the edge of the fen/reed bed. Has any peat exposure added to the acidification of the site in view of the poor flushing which is evident? Could it not be concluded that a predominantly rainwater fed site which is poorly flushed and is then subject to a greater chance of stagnation during the warmer summer months will lead to changes in the site's plant life?

Much has been said about the spread of sphagnum on the site. On page 202 of Dr. Martin George's "The Land Use, Ecology and Conservation of Broadland" there are references to the sphagnum at Catfield Fen ..... "remarked upon by Pallis as early as 1911" and "a recent study Giller and Wheeler 1988".

Dr. George suggests that "calcium depletion MAY BE conducive to sphagnum invasion, this is NOT always the case"

Again, perhaps a bit more thought and investigation is needed on this particular subject before any definite conclusions can be reached. Has anyone taken the time and trouble to look at sphagnum spread on similar sites elsewhere in the Broads?

In the Comments on Current Management for Middle Marsh,

"This is one of the most species rich parts of the Catfield Hall site where there are frequent sphagnum tussocks within the S24 which supports for example *Dryopteris cristata*"

Are we now to believe that sites elsewhere in the Broads with *dryopteris cristata*/ sphagnum are in decline?

#### Conclusions;

Brasca understands that some of the interested parties do have objectives which include references such

as “develop a close and responsive partnership with the public, local authorities and other representatives of local communities etc etc”. This does not appear to have been followed in this case. One would expect that some attention would have been paid to the opinions and thoughts of those individuals who have spent some 30 years undertaking practical work on and around the site.

Has this been a “new collaborative approach” and has it included “the importance of local knowledge and expertise”? Other objectives include “regular engagement and dialogue at a local level” and we are told “Placing people, communities and business at the heart of policies for the environment is recognised as essential and is now embedded in international agreements such as the global plan for biodiversity agreed at Nagoya under the Convention on Biological Diversity”

The reality and truth is that the whole exercise will probably be judged in time as a complete failure. Inclusive site meetings did not take place and information (site management plans) were not made available. Many of the conclusions have not been based on scientific evidence but “thought to be”, “appear to be” and “believed to be” conjecture.

Suggestions;

1. Brasca feels it would be unjust to suspend or cancel the two ground water abstraction licences owing to the lack of scientific evidence presented during this consultation. It has not been demonstrated without doubt that there is an impact on any groundwater source entering the Catfield Fen area.
2. That a change to the water level regime and management be implemented at Catfield over the next 5 years and the site be monitored by an independent person accepted by all interested parties.
3. That additional information regarding the water control structures operations and responsibility together with local management plans on this and neighbouring sites be made available to all parties.
4. The Catfield Fen site is a heavily modified system. The construction of the rond and the network of sluices permitted the management of reed, sedge, marsh hay & marsh litter. All parties should accept that the system has not been designed for different management or different water level regimes to that when it was first built. Every effort should therefore be made to follow the management and water regime for which the site has been designed.
5. Brasca will be happy to work with all parties interested in implementing the changes needed to improve the site.

Chairman - Brasca

Date: 4th.December 2014

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From: [REDACTED]  
 To: [REDACTED]  
 Sent: Thursday, December 4, 2014 1:57 PM  
 Subject: Re: Catfield - Brasca Draft Response