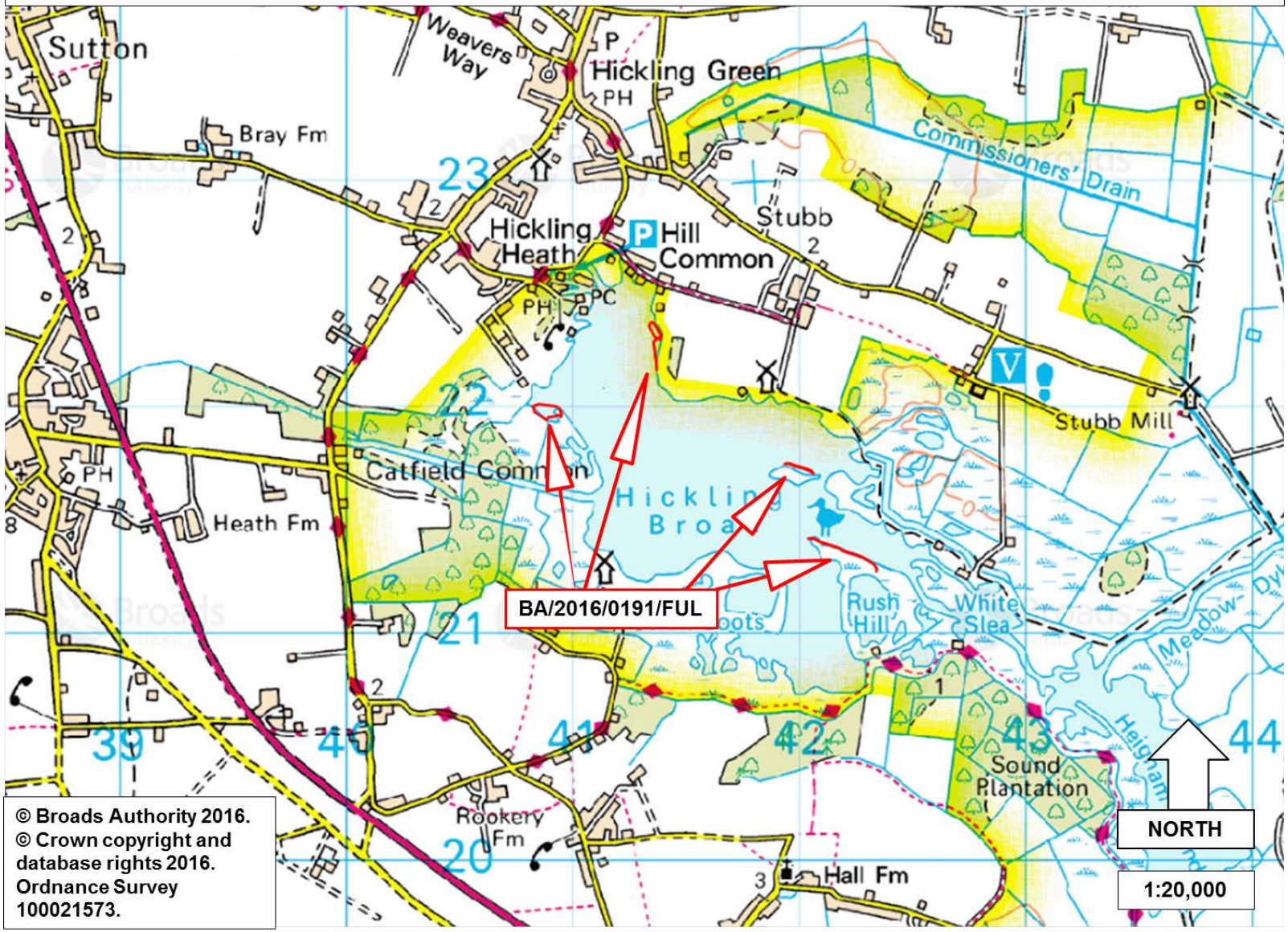
Reference: BA/2016/0191/FUL

Location Hickling Broad, Hickling

BA/2016/0191/FUL - Hickling Broad, Hickling



Broads Authority
Planning Committee
19 August 2016

Application for Determination

Parishes: Hickling

Reference: BA/2016/0191/FUL **Target Date:** 11 August 2016

Location: Hickling Broad, Hickling

Proposal: Hickling Broad enhancement work with two areas of reed swamp restoration using dredged sediment retained by a series of textile membranes held in place by posts and three areas of protection of existing reed swamp vegetation with 750 metres of floating PVC curtains with integral goose guard mesh perpendicular to the existing vegetation margin to reduce erosive forces and allow vegetation restoration

Applicant: Broads Authority

Recommendation: Approve with conditions

Reason for Referral Broads Authority application

1 Background

1.1 The Broads Authority has a strategic objective to develop a long-term approach for the management of Hickling Broad, building on scientific evidence from the Broads Lake Review. This has led to the development of a vision statement for the area.

1.2 The adopted vision for the enhancement in Hickling Broad proposes both ecological and marginal habitat works and identifies a number of outcomes:

- Protection of refuge areas in quiet bays and sheltered areas which provide conditions for water plants to flourish and habitat for fish and birds
- Maintenance of the marked channel to meet Waterway Specification
- Beneficial re-use of dredged material, being used to restore eroded reed swamp, construct lake side bank protection and regularly topping up bank restoration and island areas, as well as being spread to local arable land
- Regular monitoring to continue, to build understanding of the lake and to help shape its future management

1.3 To deliver the necessary practical work elements as part of the vision and as a result of limited funding availability, the applicant has identified the need for a phased approach to enhancement works. This will involve seeking individual planning consents for specific works over a number of years. Initial

works propose to focus on addressing the significant reedswamp regression that has taken place in key locations (as reedswamp is an important habitat with high bio-diversity value) and the first phase was trialled during winter 2015.

1.4 It is in the light of this background, this planning application has been submitted. To accompany this planning application, the following documents have been submitted to support the submission including:

- Environment Report
- Habitats Risk Assessment
- Water Quality Monitoring Plan
- Drawings and plans

2 Description of Site and Proposal

2.1 Hickling Broad is located in the northern part of the Broads and is important in terms of landscape, nature conservation and recreation interest. Hickling Broad itself falls within the very large Upper Thurne, Broads and Marshes SSSI which encompasses an extensive area – some 1159 ha. Hickling Broad also forms part of the Broads Special Area of Conservation (SAC) and Broadland Special Protection Area (SPA) which are European sites. It is also listed as The Broadland Ramsar site.

2.2 Hickling Broad has been subjected to various changes including reed swamp regression caused by a combination of factors and its highly erosive environment including the windy conditions, damage resulting from goose grazing and bacteria action in the peat.

2.3 This planning application proposes two different techniques to secure environmental enhancements to tackle reedswamp regression. This approach aims to deliver protection of refuge areas in quiet bays and sheltered areas to provide conditions for water plants / habitat for fish and birds plus offer some areas for the beneficial use of dredged material (which is to be removed from the navigable area of the Broad as part of on-going dredging works to maintain water depth in key areas).

2.4 The design has been devised following an assessment of a number of options and has been proposed as the most technically feasible and affordable, using approaches that are also relatively easy to install and remove. This application now proposes two techniques (discussed in more detail in paragraphs 2.7 and 2.8:

- Use of a retaining front edge curtain (nicospan) with a second rear edge curtain (now again using nicospan rather than the initially proposed biodegradable retaining edge) with associated backfilling with sediment / dredged material and planting
- Use of a silt curtain to encourage natural reedswamp advancement

2.5 In terms of the location of works at the edge of Hickling Broad, the following

sites have been identified in this application and the applicant has identified the following factors that justify this selection:

Location	Potential area (m_2)	Biodiversity potential	Exposure	Geotechnical feasibility	Cost effectiveness
a) Retaining nicospan front edge and second nicospan retaining edge					
Churchill Bay	5000	High	Moderate	Good	Moderate
The Studio	2150*	High	Moderate	Good	High
b) Use of a silt curtain to encourage natural reedswamp					
Pleasure Island	1123	High	Low	Moderate	Moderate
SE area of Broad	4520	High	Moderate	Moderate	Moderate
Near The Studio	2150*	High	Moderate	Good	High

*denotes potential area covers both 'The Studio' and area 'Near The Studio'.

2.6 In relation to Churchill Bay, the applicant has highlighted that the margin has degraded significantly and has eroded back some 40 metres since 1999.

2.7 In more detail, the technique proposed at Churchill Bay and The Studio follows a small trial undertaken last year close to Hill Common (based on only a single retaining curtain) which involves:

- Use of an outer curtain using nicospan (black geotextile material) held in place by softwood posts at a level some 0.70 metres AOD (based on experience of trial area – to limit impact of wave action and act as a goose guard)
- Use of a second inner retaining barrier (now proposed as nicospan material – based on its more robust qualities compared with a fibre curtain) set 5 – 10 metres from outer curtain (staked in place)
- Dredged material / sediment to be place between current bank and inner barrier to mean low level (0.22 metres AOD) with additional material placed between inner and outer curtain to form a graded slope leading to the outer edge

2.8 In more detail, the silt curtain wave barrier solution proposed for Pleasure Island, SE area of the Broad and south of The Studio involves:

- Use of a PVC membrane with floating tubes (coloured dark green) secured to bed with heavy duty chains and anchoring mudweights as a temporary feature set some 10 – 13 metres from existing reedswamp to encourage reedswamp establishment in this area;
- Gooseguard (black plastic grid to be incorporated into the top of the curtain.

2.9 As outlined in the Environment Statement that accompanies this application, it is recognised that the works associated with the application have potential to impact on water chemistry / algal production (including prymensium parvum) and impact on wildlife (notably over-wintering birds). Therefore as part of the submission, the application outlines measures and working practices to limit risk of prymnesium bloom and impact on bird population. This includes implementing a water quality monitoring plan to identify changes in water quality / cell density counts, limiting works to specific times (November to February) and when water temperatures fall within prescribed limits (i.e less than 8 degrees C). This precautionary approach is particularly relevant to the works at Churchill Bay and The Studio. A similar scheme of working was agreed when the Broads Authority was working at Duck Broad where similar environmental constraints apply.

2.10 As outlined in paragraph 1.4, the application has been accompanied by an Appropriate Assessment. This concludes that that the proposal will neither alone nor in combination with other works have a significant effect on the European site due to the temporary nature of the works, robust monitoring proposed and precautionary principle linked to works. The disturbance to waterfowl will be local and temporary only.

2.11 The applicant has identified the recreational interest of the areas but consider that the proposal limits effects as it will have no impact on land based recreation (areas not used by anglers), sediment from dredging will be removed and used in a manner that will not interfere with normal boat movements in the Broad and the main works areas are away from the navigable channel. The applicant does however recognise that the works at Churchill Bay will close off one internal marsh dyke that interconnects with others through to the north of Catfield Dyke and is close to an existing boathouse (associated with an existing dwelling at The Smea). The design of reedswamp restoration has been designed to protect the access to this boathouse although it is acknowledged that the works will prevent access for canoes in the area to one dyke. It is understood, however that whilst there may physically be access into this dyke, it is a private dyke managed by Norfolk Wildlife Trust and to which there is no permitted public access.

2.12 The proposed works are planned to be undertaken over a three year period (2016-19), subject to planning consent, with initial work concentrated at Churchill Bay and The Studio. This will involve establishing the inner and outer curtains in October 2016 with sediment removal and reedswamp restoration limited to November 2016 to February 2017 (to limit risk of environmental effect notably risk of prymnesium bloom) and maintenance works to improve operation of the existing dyke system to the south of Churchill Bay being undertaken in February 2017.

3 Site History

3.1 BA/2014/0411/FUL Install erosion protection along 3 bayed areas at NE of Hickling Broad. Approved 6 February 2015.

4 Consultations

4.1 The following comments were initially received from consultees. Following these comments, the applicant has clarified the nature of some works, notably in relation to Churchill Bay and additional comments received from statutory consultees are also provided where these amend or amplify initial views.

Hickling Parish Council – Access to the existing dykes that serve both The Studio and The Smea need to be protected and that work undertaken should not impede access to these dykes in the foreseeable future. The Parish Council also request a written assurance that closing the historic dyke is essential to the project; that removing it will not close off an escape or refuge for fish during periods of prymensium bloom; that it will not affect water flows or drainage for the village in any respect (Hickling has a high flood risk level. We understand that the channels proposed for closure are not directly part of the IDB network however the village drainage is so borderline that this change could have an effect as the village drainage is directly affected by water levels on Hickling Broad. Anything that causes water levels to rise or that impedes free drainage of water away from the village will have an immediate and deleterious effect on the community and its environment and so the Parish Council seek 100% reassurances that this will not be the case if Chamberlains Dyke is closed off); and if the closure of the dyke has any adverse effect on the water flow or drainage for the village the dyke will be immediately re-opened.

Broads Society – Support proposal.

NCC Highways – No objection.

Environment Agency – No objection. Flood Defence Consents now fall under the new Environmental Permitting (England and Wales) Regulations 2010 system (EPR). The applicant may need an environmental permit for flood risk activities if they want to do work in, under, over or within 16m from a tidal river and from any tidal flood defence structure of the River Thurne, designated a ‘main river’. Satisfied with the Water Framework Directive assessment, providing the working method and precautionary principle approach are followed. We also consider the timing of the works with respect to Prymnesium parvum is suitable.

Internal Drainage Board – Awaited.

Natural England – No objection - subject to conditions.
The application site is in close proximity to The Broads Special Area of Conservation (SAC) and Broadland Special Protection Area (SPA) which are European sites. The site is also listed as The Broadland Ramsar site. In considering the European site interest, Natural England advises that the Broad Authority, as a competent authority under the provisions of the

Habitats Regulations, should have regard for any potential impacts that a plan or project may have. Having considered the proposal and supporting documentation, Natural England advises that the proposal is entirely necessary for European site management. Natural England considers that the works are necessary for the management of the European site interest features for nature conservation purposes, enabling the maintenance or restoration of those features and contributing to the achievement of the site's Conservation Objectives. The proposal can therefore be screened out from further stages in the Habitats Regulations Assessment process, as set out under Regulation 61 of the Habitats Regulations 2010, as amended. If planning permission is granted we recommend that the following conditions are attached:

(i) The post-work monitoring should be extended to at least six weeks following completion (as opposed to at least one month proposed. There is still uncertainty over the impacts of dredging on Prymnesium algae and a bloom occurred six weeks after similar work was completed in the past; therefore the post-work monitoring should be extended.

(ii) Due to the uncertainty over the cause of the 2015/16 low wintering wildfowl numbers and because the work areas have been identified as important locations for SPA species, a 'cold weather ban' should be adopted to help alleviate stress on the birds during any difficult freezing conditions. Work should cease if the air temperature drops below freezing for seven consecutive days, and should not restart until the temperature rises above freezing for three days consecutive days.

(iii) Increase the Prymnesium cell counts to at least twice weekly if numbers approach the warning level of 10,000; this will allow the Broads Authority to become aware earlier and react faster to any further elevation in cell counts (as opposed to the proposed weekly counts proposed).

These conditions are required to safeguard the special features for which the SAC, SPA and Ramsar sites are designated.

In addition, this application lies within part of Upper Thurne and Marshes Site of Special Scientific Interest (SSSI). However, given the nature and scale of this proposal, Natural England is satisfied that there is not likely to be an adverse effect on this site as a result of the proposal being carried out in strict accordance with the details of the application as submitted. We therefore advise your authority that this SSSI does not represent a constraint in determining this application. Should the details of this application change, Natural England draws your attention to Section 28(I) of the Wildlife and Countryside Act 1981 (as amended), requiring your authority to re-consult Natural England.

Again, we would expect conditions to protect the SSSI, as detailed above for the SAC, SPA and Ramsar, to ensure that the proposal, as submitted, will not impact upon the features of special interest for which Upper Thurne

and Marshes is notified.

If your Authority is minded to grant consent for this application without the conditions recommended above, we refer you to Section 28I (6) of the Wildlife and Countryside Act 1981 (as amended), specifically the duty placed upon your authority, requiring that your Authority:

a) Provide notice to Natural England of the permission, and of its terms, the notice to include a statement of how (if at all) your authority has taken account of Natural England's advice; and
b) Shall not grant a permission which would allow the operations to start before the end of a period of 21 days beginning with the date of that notice.

RSPB – No objection. Hickling Broad has long been underperforming against its conservation objectives and measures aimed at reducing sediment input and restoring reed swamp are helpful in contributing to the restoration of this internationally important site. RSPB accept, with respect to the Habitats Regulations Assessment that this is work necessary for site management. However, we request an additional safeguard given works will take place during the winter. RSPB recognise that bird numbers are low, but they are still qualifying features of the Broadland SPA and Ramsar and Upper Thurne Broads and Marshes SSSI. Recommend that a cold weather condition be attached to the works. This should follow the JNCC guidance, for example, as set out in the "Scheme to reduce disturbance to waterfowl during severe winter weather."

Whilst we do not object to the proposed works, we note that the overall bird numbers continue to remain disappointingly low for such a large waterbody, especially one that is fully protected at international, European and national levels. Whilst the planned works are a start at addressing the failure of this site to deliver against its conservation objectives, much more is required given its international importance. RSPB hope that future work undertaken as part of the Hickling Vision will build significantly on the current works to deliver both improved open water habitat and marginal habitats for the qualifying features; action which is essential and long overdue.

NCC Historic Environment Service – No adverse comment received.

North Norfolk Council Environmental Health Officer – No objection or comment.

NSBA – No objection. Additionally we are in favour of the associated removal of accumulated sediment from the marked channel by dredging. We are aware that the works to Churchill Bay entail closing off a remote dyke through the marshes which used to connect through to Catfield Dyke. This is a loss of opportunity for exploration of the wilderness and enjoyment of its tranquillity by canoe. However, none of our affiliate clubs or classes has any interest in this dyke for organised activities, being shallow and narrow. On

balance the NSBA considers that in this instance, the environmental benefits outweigh the loss of opportunity for canoeists. Nonetheless any possible loss of navigable water, in future applications throughout the Broads, even if shallow and narrow, should be given appropriate consideration and be subject to consultation.

Navigation Committee - The application site was the subject of a site visit by Navigation Committee on 2 June 2016. Immediately following the site visit the Members had a discussion on the application and the Chairman of Navigation Committee collated the comments made and has requested that the following issues are addressed in determining the application

Firstly, scope to slightly adjust the boundary of the proposed works in Churchill Bay in such a way that it would not materially affect the works to be done, but would deal with a local objection – we would like this to be addressed as it seems that an accord can be easily reached.
Secondly, with regard to the work at Churchill Bay, we are concerned to ensure that this application has been brought to the attention of all parties who might be affected by, for example, occasional use of the drainage dykes. We are aware of consultation on this but feel that the extensive NSBA database should be uses in order to make all the relevant groups aware of the application in case they should wish to comment on it by direct contact with the Planning Department.

In response to this request the works were modified to address the concerns round access to the boathouse associated with The Smea and further notification was undertaken. The outcome of these actions is included in this report.

5 Representations

5.1 Two letters have been received from local residents.

5.2 Occupier of Timber Gables, Hill Common raises the following objections / concerns

(1) The application is in the name of a paid member of Broads Authority Staff and the Planning Committee will therefore be bias and in favour of their own cause. It is therefore abuse of the legitimate process
(2) The environmental study is not independent and also in the name of a paid member of Broads Authority Staff (who previously submitted a planning application for a similar scheme on behalf of a land owner)
(3) The Broads Authority continues to adopt a cavalier attitude toward decency, integrity and impartial consideration of planning matters to the point of complete abuse.
(4) It continues to only allow 5 minutes for an objector to present an objection whilst permitting its own staff as long as they consider necessary. Fairness and equality of arms and the rules of natural justice are not applied
(5) The site of the proposed works is SSSI and RAMSAR designated and

Natural England fail to look properly at the application and continue to allow the Broad to be polluted by the very authority that is supposed to protect the area

(6) Previous dredging works last winter caused considerable disturbance of the wildlife and aerial photography already shows visible signs of extensive algae bloom. In short the fish will die again and it will be entirely the fault of the Broads Authority.

(7) Goose guard used at the site prevents ducklings getting to the Broad and they perish through predators as a result this has also been the case with the Flood Barrier

(8) They admit within the report that they do not understand why reed bed erosion has taken place yet submit this application based on assumption and not environmental or scientific fact. The report is grossly negligent and the committee should not rely on anything contained within it.

(9) The works already carried out at Hill Common are an environmental mess and nothing for anyone to be proud of.

(10) This application is really simply disposal of polluted environmental waste in the middle of an SSSI and RAMSAR site.

Additionally the occupier subsequently responded

I note the use of textile that will not biodegrade, this to address any risk of future pollution and movement of the sediment. I point to the lack of independence in the environmental report and the complete failure of Norfolk Wildlife Trust and Natural England to engage. Having recently viewed NWT watercourse works to the south of Hickling Broad many are completely blue with pollution.

Given that Natural England allowed unregulated dredging outside our house the year before last we have a position that the three entities are all as guilty as each other in failing wildlife Conservation. Their silence, frankly, says it all.

I continue to object to this planning application. In my view dredging is completely in conflict with the natural environment and will result in the death of wildlife that access the Broad. There is no sense whatsoever in excavating polluted material and then spreading it around the edges of the Broad.

As to planning issues, all of these works completely conflict with the designation of the site and current planning policies. The dredging conflicts with the code of practice for inland waterways and the proper environmental disposal of contaminated waste. If dredging is to take place the dredged material should be taken away and disposed of off-site.

The Broads Authority knows well what its true legal responsibility is but continues to ignore it.

I see that I remain a lone voice against a deathly silence from those who have a similar duty but are too weak to speak out against what is being proposed.

There remains nothing in this that lends any credibility to the Broads Authority.

I will leave the matter with you as nobody is remotely bothered how many creatures perish as a result of each one of these planning applications.

5.3 Occupier of The Smea, raises the following concerns:

Access to my boathouse dyke - The application makes no reference whatever to the access dyke to my boathouse which is immediately adjacent to the proposed retaining structure. An earlier graphic, on show at the recent open day, clearly obstructed my access. Tom Hunter has very kindly put in place poles to indicate the edge of the structure and I can now confirm that if this line is adhered to and the intermediate zone does not result in any additional reduction in water depth, my access will be adequate. I do have a concern that the machinery used during the construction of the structure and the subsequent pumping needs to be sited such that it does not block or impede my access. I also need assurance that any displacement of the silt in the bay by these works does not result in an ingress of mud into my dyke or between the bay and the navigable channel.

Closure of existing drainage dyke - This proposal requires the closure of the main dyke draining this area of marshland. While there is reference to the possibility of opening up other dykes, there is no proposal as such. The line of the proposed structure does not follow the edge of the old reed bed and instead takes a wide sweep that completely closes off the historic drainage dyke. While I accept the comment that there is no right of navigation, this and other similar dykes are part of the original structure of these areas and have been used for generations for informal access and in earlier times for reed and sedge harvesting. It seems to me strange that if we are trying to restore this hugely significant area, we should start by destroying part of its past.

While I understand that NWT have no objection to the closure of the dyke, I think they are mistaken. A flow of water in and out of the marsh will enhance its ecological status and since they have already blocked the other main dyke in the system (except for a pipe which is not maintained), I think there is a real risk of significant change to this man-made system.

A further value of this dyke is its availability as a refuge for fish in the event of a prymnesium outbreak, which will inevitably happen at some point.
I can see no reason why the dyke should not be preserved, with the enclosure continuing on the other side of it and indeed being extended to compensate for any loss of spoil capacity.

6 Planning Policy

6.1 The following policies have been assessed for consistency with the National Planning Policy Framework (NPPF) and have been found to be consistent

and can therefore be afforded full weight in the consideration and determination of this application.

Broads Core Strategy
Core Strategy Adopted September 2007 pdf

Policy CS1 – Landscape protection and enhancement
Policy CS2 – Landscape protection and enhancement (European Sites)
Policy CS3 – Navigable water space
Policy CS4 – Creation of new resources
Policy CS15 – Use of dredging

Broads Development Management Policies DPD
DEVELOPMENTPLANDOCUMENT

Policy DP1 – Natural environment
Policy DP3 – Water quality and resources
Policy DP4 - Design
Policy DP29 – Development on sites with a high probability of flooding

6.2 The following policies has been assessed for consistency with the NPPF and has been found to lack full consistency with the NPPF and therefore those aspects of the NPPF may need to be given some weight in the consideration and determination of this application.

Broads Core Strategy

Policy CS20 – Flood risk

Broads Development Management Policies DPD

Policy DP28 - Amenity

6.3 The following policy has been assessed for consistency with the NPPF and found in part to be inconsistent with the NPPF so care is needed in applying this policy and where weight can be given.

Broads Development Management Policies DPD

Policy DP13 – Bank protection

6.4 The National Planning Policy Framework (NPPF) http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf - represents a material consideration in determining applications. It highlights a presumption in favour of sustainable development. In relation to this application, the following are considered particularly relevant.

Para 109 - highlights the planning system should protect and enhance valued landscape; and
Para 115 - recognises great weight should be given to conserving landscape and

scenic beauty in the Broads; and
Para 118 - highlights local planning authorities should aim to conserve and enhance biodiversity interest, ensuring protection of SPA, SAC's and Ramsar sites.

7 Assessment

In view of site specific factors and planning policy, it is considered that the key issues relate to:

- Design / visual impact
- Nature conservation
- Navigation and recreation
- Flood risk
- Other considerations (including amenity)

7.1 Design

7.1.1 The application proposes to use two different techniques in five areas at the edge of the Broad, well detached from the main navigable area. The techniques proposed are relatively new. There has been a trial of the 'retained edge and back fill with sediment' technique at Hill Common and an objector has considered that this has not been successful due to harm to the designated site and algae bloom. However the applicant considers the trial has been successful and as discussed in section 7.2, no concerns have been raised by statutory consultees (such as Natural England) regarding this approach, monitoring has identified no unacceptable increase in algae and no fish deaths have been evident. Furthermore the trial has helped inform and refine certain design elements contained within this application, including the use of a double nicospan curtain and the height of goose guard.

7.1.2 In terms of the visual impact on the extensive Broad, the main impact will be in relation to Churchill Bay (and to a lesser extent associated with The Studio). It is considered that visual impact for most Broads users will be mainly long distance, although close to Churchill Bay there will be the loss of an existing narrow dyke (discussed further in sections 7.2 and 7.3). It is however considered that the competed works will provide a natural appearance that will complement the traditional appearance of the area preserving and enhancing the character of the area.

7.1.3 There will be some short term impact from the use of geo-textile features and silt curtains. However these will not have a significant impact on the appearance and in the case of the silt curtain technique proposed (at Pleasure Island, SE Area of the Broad and partly The Studio), these are designed to be re-used elsewhere (subject to wear and tear) so once the new edge has established in these locations, scope should exist to remove and then re-use this silt curtain elsewhere as conditions permit.

7.1.4 Overall it is considered the design is satisfactory and sustainable and meets the key tests of development plan policies CS4, DP1 and DP4.

7.2 Nature conservation considerations

7.2.1 As highlighted in Natural England comment, the application site is within the Broads Special Area of Conservation (SAC) and Broadland Special Protection Area (SPA) which are European sites, is also listed as the Broadland Ramsar site and that Hickling Broad falls within an SSSI designation (the Upper Thurne, Broads and Marshes SSSI) which extends to 1159 ha.

7.2.2 The application proposes creating five areas of reedswamp habitat with the largest two areas using dredgings to create new reedswamp habitat (and the remaining three promoting reedswamp advancement).

7.2.3 Concern has been expressed in relation to works at Churchill Bay regarding the loss (effectively stopping up) of an existing north – south (N-S) marsh dyke which is considered by an objector to be important in drainage / water exchange this area. In response the applicant has now confirmed that this is not a dyke managed for drainage as part of the IDB network, however has detailed that works of maintenance of existing dykes will take place to ensure that the new reedswamp area at Churchill Bay (which will prevent water entering this N-S dyke directly from the north) will be mitigated by the maintenance of existing east – west (E-W) marsh dyke and this should perform the same function of letting water into and out of this area. It is considered that provided this is undertaken and an ongoing maintenance programme is agreed by planning condition that this concern will be addressed.

7.2.4 In view of the nature conservation interest of the area, the applicant has sought to devise proposals using techniques which will safeguard nature conservation interest and limit the risk of impact on the key features of the area. The approach adopted is welcomed, which is to concentrate works in into the autumn and winter period, at periods when water temperatures fall into specific thresholds (notably under 8 degrees C) linked to water monitoring plan to identify changes in water quality / cell density counts to limit the risk of prymnesium bloom as a result of the works (as detailed in section 2.10).

7.2.5 Natural England accept that the works are necessary for the management of the European site interest features for nature conservation purposes and this will enable the maintenance / restoration of features to contribute to meeting site Conservation Objectives. Natural England accept that the proposal meet the Habitats Regulations requirements but consider that the monitoring proposed in the application should be further enhanced by the imposition of the following conditions (to safeguard the special features for which the SAC, SPA and Ramsar sites and SSSI) to cover:

- post-work monitoring extended to at least six weeks following

completion as there is still uncertainty over the impacts of dredging on Prymnesium algae and a bloom occurred six weeks after similar work was completed in the past

- a 'cold weather ban' should be adopted to help alleviate stress on the birds during any difficult freezing conditions (with works ceasing if the air temperature drops below freezing for seven consecutive days and should not restart until the temperature rises above freezing for three days consecutive days)
- increase the Prymnesium cell counts to at least twice weekly if numbers approach the warning level of 10,000; (to allow the Broads Authority to become aware earlier and react faster to any further elevation in cell counts)

7.2.6 In view of the above, it is considered that the proposals will safeguard the nature conservation and water quality interests of the area and will increase reed swamp habitat which will add to the interest of the area and is consistent with development plan policies CS1, CS2 and DP3

7.3 Navigation and recreation

7.3.1 The areas of works are proposed at the edge of Hickling Broad, well outside the main navigable areas and also away from areas where angling takes place or any public right of way exists.

7.3.2 It is however recognised that there are works close to existing boathouses (linked to The Smea and The Studio) and this could impact on the access routes from these boathouses / propertie to the main Broad. In seeking to create new reedswamp at Churchill Bay, the application has indicated that the proposed alignment of the new edge seeks to broadly reflect (but not accurately mimic) the 1946 position, whilst seeking to retain safe and convenient access to this boathouse.

7.3.3 It is considered that the proposal does allow sufficient access to the boathouses but it will be important that the creation of the new edge does not increase rate of sediment build up in this area so it is considered reasonable for a planning condition to be imposed to require depth to be monitored and that remedial works be undertaken should depth fall below an agreed threshold (particularly in relation to The Smea based on the design of scheme). This approach is similar to a condition that has been imposed with BESL planning applications where there is risk of impact on specific navigable routes.

7.3.4 As discussed in sections 7.1 and 7.2, the works at Churchill Bay will effectively 'stop up' one of the N-S dykes that help water exchange in the existing reedswamp area. This area has been used informally for access by canoe but the applicant has confirmed that there are no navigation rights. Whilst the NSBA identify the desirability to retain such dykes to allow exploration of areas of wilderness, in consultation they have identified that none of their affiliate clubs or classes has any interest in this dyke for organised activities as it is shallow and narrow. Furthermore the works will

have no impact on established navigation rights and it is considered that the benefit of creating reedswamp habitat and creating areas for beneficial sediment disposal provide a stronger navigation benefit than any unofficial rights to access this dyke.

7.3.5 In view of the above, it is considered that any impact on recreation will be limited to water based activities and the proposal will safeguard navigation interests, subject to the imposition of suitable planning conditions and will accord with the provisions of development plan policy CS3.

7.4 Flood Risk

7.4.1 The application proposes recreating habitat which would reduce the area of open water in the Broad. However in creating the areas of reedswamp at Churchill Bay and The Studio, this will be created by use of dredged material from the navigable channels in the Broad. Therefore the applicant considers that the proposal, will not increase water levels either in the Broad or elsewhere as a result of the works.

7.4.2 Development Plan policy DC 29 seeks to resist proposals which would increase flood risk (a concerned raised by Hickling Parish Council). In this case as the proposal will effectively use dredged material in the Broad to create new habitat, there will be no unacceptable impact on water levels and this is a views shared by the Environment Agency in raising no objection. Therefore it is considered the proposal will not conflict with the aims of development plan policy.

7.5 Other considerations

7.5.1 It is recognised that the areas within the application site are quiet and tranquil areas where little activity or disturbance takes place. As part of the reedswamp restoration work, the applicant has identified the need for plant and machinery to be used to create these new areas. In relation to both The Studio and Churchill Bay, there are properties in the vicinity which could be impacted by noise and distance during construction period. The applicant has now clarified where such plant and machinery will be sited and the additional information suggests that the plant and machinery will be located as distant as operationally practical from the dwellings for the construction period

7.5.2 Whilst in such a quiet location there is likely to be noise and disturbance, this should be short term and concentrated into the autumn and winter months and it is considered that such short term disturbance will not unacceptably harm residential amenity especially when judged against the benefit of creating reedswamp habitat and creating areas for beneficial sediment disposal.

8 Conclusion

8.1 Whilst some concerns have been raised by local residents regarding the

application, the proposal has been generally supported. It is considered that the application proposals will deliver an acceptable design of enhancement works that will protect and enhance the nature conservation value of the area subject to the imposition of the planning conditions outlined below (which the applicant has indicated they are happy to meet) and will therefore meet the key tests of development plan policies.

9 Recommendation

9.1 Subject to any additional representation / comment being raised, planning permission be approved subject to the following conditions:

(i) Standard time limit condition
(ii) All works to accord with approved plans / submitted details
(iii) Maintenance programme of dykes adj Churchill Bay to be agreed
(iv) Water Monitoring Plan
(v) Post-work monitoring extended to at least six weeks;
(vi) A 'cold weather ban'
(vii) Twice weekly Prymnesium cell counts if numbers approach the warning level
(viii) Monitoring / mitigation water depths adjacent to Churchill Bay and The Studio
(ix) Location / duration of plan and machinery to be agreed

Background Papers: Planning File BA/2016/0191/FUL

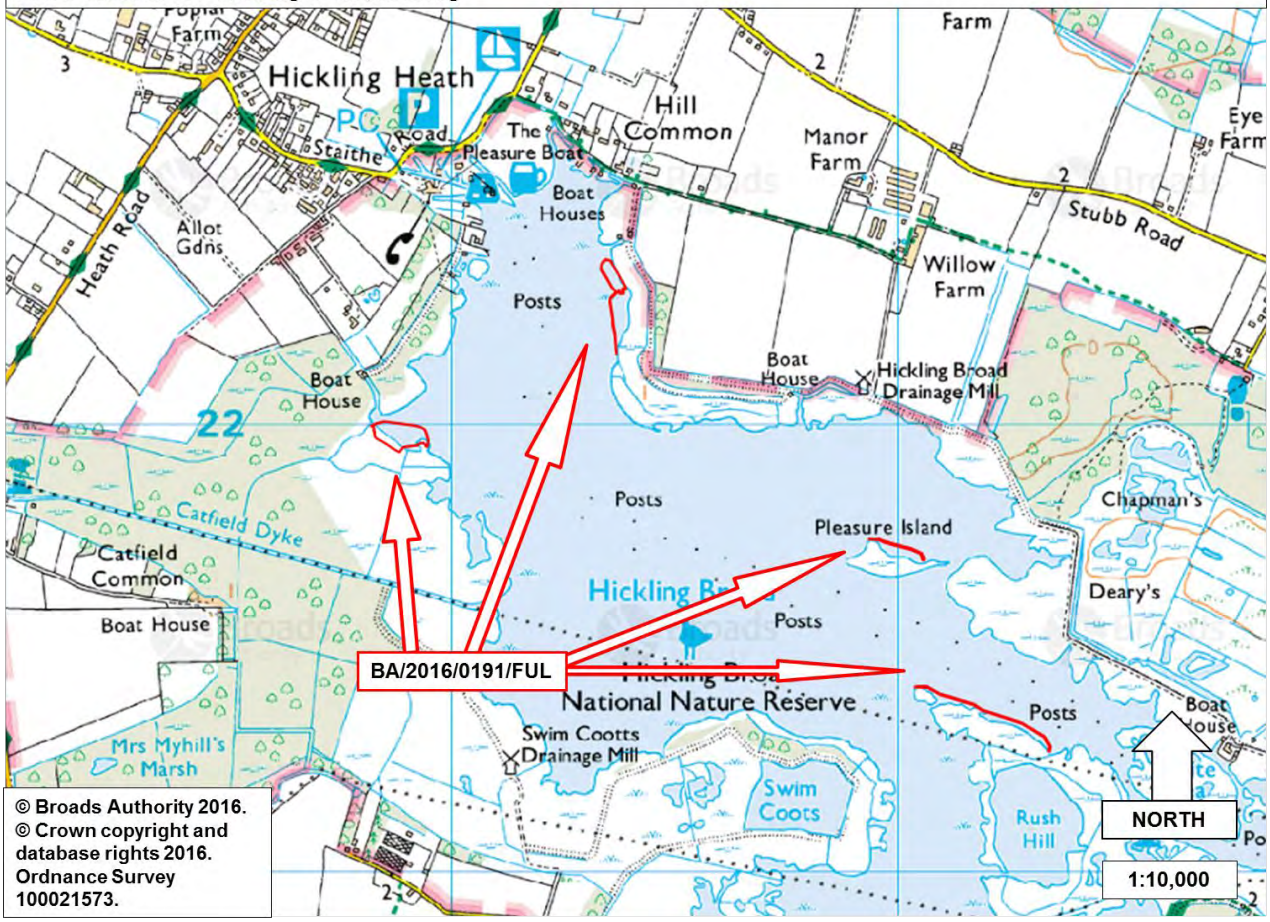
Author: Andy Scales

Date of report: 20 July 2016

Appendices: APPENDIX 1 – Location Plan
APPENDIX 2 – Aerial photo identifying application techniques

APPENDIX 1

BA/2016/0191/FUL - Hickling Broad, Hickling



Broads Authority
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Hickling Broad Lake Edge Enhancements

Date: 28/04/2016
Author: SallyM