

Environment Agency permitting decisions

Decision Document: Bespoke permit for Flood Risk Activities in respect of works at Hoveton Great Broad

The Environment Agency has decided to grant the permit for the installation of three fish barriers at the entrances to Hoveton Great Broad by piling wooden supports and attaching the mesh barriers at Hoveton Great Broad applied for by Natural England (the Applicant).

The permit number is **EPR/NB3494JP**.

The flood risk activity consists of installation of three fish barriers at the entrances to Hoveton Great Broad by piling wooden supports and attaching the mesh barriers at Foxborrow dyke (TG32071581), the Dam (TG32421614), Hoveton marshes (TG31891651) between Hoveton Great Broad and the main river Bure.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure the appropriate management of impacts on flood risk and land drainage and that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Key issues of the decision
- Annex 1 the decision checklist, which identifies the key issues in this application.
- Annex 2 the consultation and web publicising responses
- Annex 3 the documents considered during, and forming part of, the determination process

Key issues of the decision

Introduction

The aim of the scheme the subject of this Application and considered throughout this decision document is to improve the status of the water body in terms of the Water Framework Directive. Evidence in support of the central aim has been presented within the Application. That evidence demonstrates that the scheme will achieve its stated aims within a temporary period, not exceeding 10 years, with benefits in terms of ecological status and water quality and with no deterioration in the fish element status. However, concerns have been expressed by the Environment Agency's Fisheries Biodiversity and Geomorphology team, particularly relating to the impact on fish. A summary of the Water Framework Directive considerations is provided below with further detailed analysis set out in Annex 1.

Key Issues

Following analysis of the Application and the receipt of internal and external consultation responses the key issues have been identified as follows:

- Water Framework Directive
- Impact on Fish
- Environmental Benefits
- Impact on Fisheries and Angling Tourism
- Flood Risk and Land Drainage
- Navigation
- Economic Impact
- Impact on protected species
- Public Funds
- Otters
- Flooding
- Alternative options
- Barrier Design

Assessment of the Key Issues is provided throughout this document with a detailed analysis within Annex 1. Annex 2 provides consideration of the issues raised through the further public consultation.

Water Framework Directive

The Environment Agency's Fisheries, Biodiversity and Geomorphology (FBG) team have significant concerns with the proposed works and have submitted consultation responses in objection to the application.

In determining the application, we have worked with both the Applicant and the Environment Agency's FBG team to seek to resolve these objections, of which some have been resolved. However there is a fundamental difference in technical and scientific opinion on whether excluding fish from HGB as a water body constitutes deterioration in the fish element component of the biological quality elements of ecological status.

There are also fundamental differences in the impacts fish exclusion will have on breeding. HGB has been found to be an important breeding location for bream following a survey in 2019. However scientific literature states that bream are able to breed in a wide range of conditions that are available outside of HGB.

Fundamental differences exist in the technical evidence provided by the Applicant and our FBG team. Please see the WFD Assessment section in Annex 1 below for detail on the differing technical evidence and the conclusions we have come to in determining this permit application.

Flood Risk

There are two communities (Horning and Wroxham) that are at risk of flooding close to these proposed works. The Applicant has undertaken hydraulic modelling to assess the flood risk posed by the scheme. This modelling has been reviewed and assessed as suitable for use in planning and permitting purposes. It shows no significant change in flood risk in either Horning or Wroxham.

High public Interest

This application was determined as High Public Interest (HPI) on the 13/12/2019 and was determined HPI for the following reasons:

- Additional information came to light that was not available at the time of the original consultation through the planning process and had not been considered through a public consultation.
- This additional information regarding the importance of Hoveton Great Broad to bream and roach raised concerns with certain public groups (Angling Groups) and there was interest from the wider public that we needed to consider and address in our permitting decision.
- There has previously been media interest in these proposed works and so there was potential for media interest.

Public Consultation

Public consultation on this permit application was undertaken via Citizen Space. Citizen Space is the Environment Agency's website that allows the public to provide consultation responses on permit applications. The consultation was advertised in the Eastern Daily Press newspaper on 20 January 2020. The consultation was open from the 20 January 2020 to 17 February 2020.

Annex 2 of this document provides the comments received from the public.

Schedule 5 Notices for more information

Two Schedule 5 Notices for more information were issued to the Applicant requesting more information from them. The first notice was issued on the 28 February 2020 and was in relation to our review of the hydraulic flood risk modelling submitted by the Applicant. Our model review highlighted three 'major issues' that we required more information to resolve. On the 18 March

2020 we received a response to this Notice, which resolved the modelling issues.

The second notice was issued on the 13 March 2020 and was in relation to comments raised through the public consultation and our internal consultation. We requested more information from the applicant on Alternative options, Water Framework Directive (WFD) assessment, eel pass design, ecological surveys for water vole and otters.

On the 3 April 2020 we received a response to the second Notice, which provided information about alternative options, the eel pass design and ecological surveys for water vole and otters (see annex 1 below). The response provided missing data in the WFD assessment, further details discussed below and in annex 1.

Permit Extension

The original permit determination deadline was 7 May 2020, but a permit extension was agreed with the Applicant up to 8 June 2020. A second permit extension was agreed with the Applicant up to 15 July 2020. A third permit extension was agreed with the Applicant up to 22 July 2020. A fourth permit extension was agreed with the Applicant up to 27 July 2020. The reason for these permit extensions are due to COVID-19.

Compliance Check

These works are considered to have a high potential impact of flood, drainage or environmental risk under the draft Compliance check for Flood Risk Activity Permits for all of the following reasons:

- Location is in or close to National and/or European Designated Sites
- Location with higher properties at risk
- Significant factors raised from internal and/or external consultees
- High Public Interest
- Permitted activity includes channel structures that occupy more than a 1/3 of the main river width

Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist (see the Operational Instruction on receiving to duly making FRA applications), the application and supporting information and permit/ notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
Receipt of submission		
Confidential information	A claim for commercial or industrial confidentiality has NOT been made.	N/A
Identifying confidential information	We have NOT identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on commercial confidentiality.	N/A
Consultation		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with the Environmental Permitting Regulations 2016 (EPR), our Public Participation Statement, internal guidance on High Profile Sites, and our Working Together Agreements.</p> <p>We carried out consultation with Environment Agency internal departments and other public bodies on this application through notifying them of the web based public consultation.</p> <p>We carried out web based public consultation and web publicising on this application.</p> <p>A list of consultees is included in Annex 2.</p>	✓
Responses to external consultation and web publicising	<p>The public participation, web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The issues raised by the consultation responses have been listed in Annex 2, which includes an analysis of each issue.</p>	✓
Operator		
Control of the activity	We are satisfied that the Applicant is the person who will have control over the operation of the permitted activities after the grant of the permit. The decision was taken in accordance with our published guidance on the meaning of operator.	✓
The site		

Aspect considered	Justification / Detail	Criteria met
		Yes
Extent of the site or sites	The Applicant has provided a plan which we consider is satisfactory, showing the extent of the site of the activities A plan is included in the permit and the operator will be required to carry on the permitted activities within the site boundary.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
Water Framework Directive	<p>The application includes an activity affected by WFD requirements.</p> <p>A full assessment of the application and its potential to affect the water bodies has been carried out as part of the permitting process and is set out below. We consider that the application will not compromise the achievement of the environmental objectives for the water body.</p> <p><u>FBG technical view</u></p> <p>Our Fisheries, Biodiversity and Geomorphology (FBG) team have objected to the conclusions of the WFD assessment provided by the applicant. Our FBG team have provided technical evidence to support their position. The key points of this evidence are summarised below:</p> <ol style="list-style-type: none"> 1. Exclusion of fish from Hoveton Great Broad (HGB) and Hudsons Bay (HB) will cause deterioration in the fish element status of the WFD water body and carries a significant risk of causing fish element deterioration in other connected WFD water bodies within the Northern Broads system. This would not be permissible under WFD. 2. The impacts of fish exclusion cannot be mitigated at a water body level within HGB and HB. 3. The impacts and potential risks to fish arising from the proposed activity are incompatible with the exercise of our statutory fisheries duties. 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>4. Concerns were expressed about the completeness of the WFD assessment submitted by the Applicant. Following those concerns the Applicant then updated the WFD assessment to include the latest data. However the FBG team are still not satisfied that the assessment addresses the risk that a reduction in roach or bream numbers could cause a deterioration in WFD fish element of ecological status and have fundamental difference of opinion on this issue.</p> <p>The views of our FBG team stated above are a result of a bream spawning assessment they undertook in 2019 on the River Bure catchment including on HGB and HB. This survey work shows that in 2019 a significant number of bream used HGB and HB for breeding. Other work over the last four years indicates that HGB and HB are well used by bream and some appear to preferentially migrate to this broad at spawning time.</p> <p><u>Applicant's technical view</u></p> <p>We have received technical evidence from Natural England as the Applicant in response to the concerns and objections raised by our FBG team. The key points of Natural England's evidence are summarised below:</p> <ol style="list-style-type: none"> 1. The Environment Agency and Natural England both have statutory duties to improve a water body's status to favourable conservation status. 2. It is not known whether Bream numbers could be impacted by exclusion from the Broad, but they are known as an adaptive species that can survive in a wide range of habitats, many of which are known to exist throughout the rest of the Northern Broads catchment. As such it is deemed that while there could be an impact it is not likely to be significant and that the Bream would quickly adapt. As such there will not be deterioration in the fish element of ecological status. 3. Habitat mitigation measures have been proposed within the Fisheries Improvement Programme (Document numbered 16 in Annex 3 – Table 1). 4. Monitoring can be undertaken to assess whether there is an impact and if a negative impact is noticed, the fish barriers can be quickly opened to mitigate this. 	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>5. The project is designed to improve a water body that is in a poor condition and not meeting its environmental objectives in relation to other quality elements of ecological status, so that it can contain a wider variety of species and create an environment that is better at coping with environmental pressures (e.g. temperature changes etc...). Dominance of roach and bream (as measured by number and biomass) indicates a community impacted by eutrophication. The project aims to reinstate a more balanced species rich community structure which would benefit the ecology and the WFD fish element.</p> <p><u>Conclusion</u></p> <p>In determining this permit application we have taken a robust approach to deciding the merits and risks of the project. This was especially important given the technical nature of the arguments and the differing views expressed, especially with regards to the potential impact on bream and the influence of fish on water clarity and ecological quality. Experts from the Applicant and Environment Agency Fisheries team provided a summary of their views with supporting evidence and references. Each side was able to review all the evidence. All information, along with the representations received as part of this consultation were then reviewed prior to making the permit decision. Please note the summary evidence report is referenced in Annex 3 – table 1 below and can be found as documents numbered (16, 17, 18 & 19). These documents are available on the public register.</p> <p>Our conclusions are:</p> <p>1. Our FBG team objections rely on primary evidence in the form of the bream spawning assessment 2019, survey data from HGB and HB along with fish tracking data and direct survey observations over the preceding four years, and combined decades of fisheries' experience. Much of the data has yet to be scientifically reported and reviewed and therefore has not had the scrutiny associated with peer reviewed published information. This information, is weighted accordingly in the decision making process.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We received public consultation responses that had concerns on “harm to fish” if the works were allowed to go ahead. We received a response that provided fish stock modelling evidence that indicates bream stocks will decline significantly over 15 years if they are excluded from HGB and HB. This evidence assumes that with HGB and HB excluded bream spawning success will be 20% of its current level. This evidence takes a similar view to our FBG team that HGB and HB provide unique breeding habitat, rather than preferential breeding habitat. This approach has not been scientifically reviewed and relies on a number of untested assumptions. As such, although a valid approach, the conclusions cannot be treated as peer reviewed evidence but has been considered as part of the decision making albeit with a reduced level of confidence.</p> <p>The Environment Agency’s FBG team has been undertaking further monitoring work in 2020 with comments provided in two emails on the 20/07/2020. This detection data has been gathered in the last few months and the email provided information on a tagged fish (ID #30048) that has been recorded in HGB and HB during the fish breeding season three years in a row. This data displays a common pattern that has already been made in previous FBG evidence. This information focuses on one tagged fish and has not provided comment on the rest of the data and is not yet peer reviewed. We have considered this information and have decided that it does not alter our permitting decision. As detailed in point 3 below this evidence has been given a lower weighting as it is not yet fully analysed, reported and peer reviewed.</p> <p>2. Much of the Applicant’s evidence relies on peer-reviewed research on biomanipulation, but this evidence does not specifically match to the exact circumstances of HGB and HB with it being an online water body that is interconnected with a number of other water bodies. This type of peer reviewed evidence was considered to provide greater confidence where it applied to the potential outcomes of the project as a result.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>3. As such the technical evidence provided by both the Applicant, our FBG team and the public have their own strengths and weaknesses. We are of the view that large parts of the evidence from our FBG team and the public, where peer reviewed evidence was not available, carries a lower confidence in predicting the perceived outcome in comparison to the Applicant's evidence on impacts to bream.</p> <p>The Applicant's review of fisheries literature suggests that the dominant fish species of the broad are likely to find other areas to utilise if HGB is isolated. The Environment Agency Fisheries' team relies on primary observations and data gathered at the specific site and similar sites in the East of England. Whilst this is site specific and important observational information, much of this data has yet to be reviewed and reported and so suffers from a lack of peer review. As such, the published data is considered to hold greater weight.</p> <p>On the evidence reviewed, we are of the view that the aquatic conditions in HGB and HB provide preferential breeding habitat and that bream can and will breed elsewhere without significant harm to bream stocks.</p> <p>4. Our FBG team also objects on the grounds that this application is incompatible with the exercise of our statutory fisheries duties.</p> <p>5. There is no WFD fish classification tool for shallow Broadland lakes and therefore no classification status for fish. This has hampered our ability to demonstrate whether the project could cause deterioration. We have therefore had to assess the weight of evidence from both sides to consider what the likely outcome may be.</p> <p>WFD description of fish element status in section 1.2.1 and 1.2.2 of Annex V to Water Framework Directive refers to fish communities rather than single species and is about composition and abundance of species and if there are any changes to fish communities. The Environment Agency did not classify fish element status in 2015 in the last Anglian River Basin Management Plan for this water body. In the absence of any formal classification we are relying on local expertise and knowledge as to the classification of the fish element status and whether it would deteriorate as a result of the grant of the permit.</p>	

Aspect considered	Justification / Detail	Criteria met Yes
	<p>6. The Applicant's proposed works are designed with the specific purpose of improving the WFD status. As such the Applicant does not believe there would be deterioration in the fish component of the biological quality element of water body status. We agree that the project will not cause deterioration in the fish element. This is based on the evidence presented in section 4.3.1 of document numbered 17, as referenced in Annex 3 – table 1 below, which is available on the public register. As a result the WFD article 4.7 defence which allows for breaches in Water Framework Directive requirements including deterioration where a series of conditions are met, is not applicable.</p> <p>7. Internal fisheries advice is that the project would constitute a deterioration in the WFD fish component of biological quality elements of ecological status. Any clear viewpoint on this question is hampered by the lack of a classification tool for shallow lakes and therefore the lack of a clear understanding of what the target community would constitute. We have concluded that the potential reduction in the numbers of the dominant species, bream, in HGB would not constitute a deterioration in status. This is as a result of using the learning from a Dutch model run of lake fish classification as a surrogate measure. This model indicated that reducing bream dominance was considered an improvement in the fish element as over dominance of this species is an indicator of eutrophic status. This information was treated with caution as it is a model and has a number of caveats, but with little other direct evidence, it was considered relevant to the decision making process. The detail is available in section 4.3.1 of the document entitled Hoveton Project: creating a sustainable future for the Bure system (Document 17 as listed in Annex 3 – Table 1 and available on the public register). In terms of WFD deterioration in fish component of biological quality elements we are not of the view that it is a single species impact that constitutes deterioration, but instead meeting fish element status objective involves having a diverse resilient fish community within water body.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>8. As the project's aim is to create a more diverse fish assemblage in the system by creating clear water habitat that favours a wider variety of fish species, it is unlikely that this temporary project will have long-term widespread angling tourism impacts in the connected wider Broadland system.</p> <p>9. The FBG team's evidence shows that the conditions for bream spawning are favourable in HGB and HB and indicates that in 2019 they spawned in HGB and HB predominantly and a few other areas in low numbers. Excluding bream from HGB and HB poses a potential risk to their numbers should spawning in other locations prove not to be as successful.</p> <p>10. Natural England's evidence concludes that bream are ubiquitous spawners and that the rest of the Bure and Broads catchment contains habitat that bream can use as an alternative to HGB and HB.</p> <p>11. The FBG team's evidence looked into potential impacts on pike. Pike were not found in great numbers in HGB and HB early on in the project development as pike habitat relies on clear water and ambush habitat such as macrophyte beds, which HGB and HB does not currently provide in sufficient density. The project is designed to provide conditions for macrophyte growth and should result in additional habitat for pike.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>In balancing these different technical reports and views, we have decided to grant the permit. The general understanding of lake restoration in Broadland is well reported and the techniques proposed are well understood and so should deliver the required ecological improvements. The risk to the fishery has always been an important factor, hence our site specific fishery data gathering over the recent years and ongoing. Whilst this has shown that HGB and HB appear to be important habitat for bream and roach, and important for bream spawning, it is considered that the Broads are not unique, i.e. that these generalist fish will find other habitats in the many kilometres of connected Broadland waters. We have taken in to account the aims of the project to improve the failing WFD elements (lack of water plants, excessive algal growth), including fish, its temporary nature and the fact that the Applicant will follow a wider fisheries improvement plan (Document numbered 16 in Annex 3 – Table 1) to maximise the learning from the project and have concluded that the benefits outweigh the risk to the fishery in this instance.</p> <p>We understand that there are inherent unknowns due to the novel nature of the works and that there are potential risks to bream spawning success, as such we have added a condition to the permit. This is to ensure that if bream spawning success is significantly affected and is directly attributable to their exclusion from HGB and HB and not to other factors, we can require the fish barriers to be opened to allow bream into HGB and HB, so as to mitigate this potential impact.</p> <p>The application submitted is for temporary fish barriers that will be removed in 10 years' time. This will allow a more diverse fish assemblage to use the more stable clear water environment that the works seeks create and improve the composition and abundance of fish communities in the water bodies. We have conditioned that the structure are removed in 10 years' time.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>As HGB and HB are classified as poor status under WFD, we conclude that there are wider risks and consequences to the environment, including fish in the longer term, if the project to improve the aquatic environment of HGB and HB is not undertaken. This project will meet the aim of delivering the WFD objectives and SSSI targets for reaching the desired environmental quality at HGB and HD. Without intervention, and according to acknowledged lake restoration understanding and practice, it is very unlikely that these targets will be achieved by the timescales required, leaving us with an ecologically poor broad for decades to come. The action proposed, which would be authorised by the permit, is an acknowledged step in lake restoration at the existing nutrient levels. Without any action, it is unlikely that any improvement will be seen until nutrient conditions are better, and this may take decades.</p> <p>The decision was taken in accordance with the legal requirements section below and our guidance.</p>	
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected or priority species or habitat and/or a salmonid or cyprinid river.</p> <p>This section deals with effects on the Bure Broads and Marshes SSSI, The Broads SAC, Broadland SPA & Broadland Ramsar that these works will take place within.</p> <p>A full assessment of the application and its potential to affect the site, species and habitat has been carried out as part of the permitting process. These assessments can be found as documents numbered 20 and 21 in Annex 3 below and are available on the public register. We consider that the application will not affect the features of the site, species and habitats and we concluded that the application for the project will not have a likely significant effect on the Broads SAC, Broadlands SPA and Broadland Ramsar nor is permission for the operation of the project likely to damage the features of Broads and Marshes SSSI.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>The Applicant's supporting documents already provide the necessary operational controls needed to mitigate against these effects. We have specifically conditioned the more important operational controls to ensure that they are clear to the applicant.</p> <p>We have added operational controls in the permit requiring the works to take place between September and February inclusive to ensure that the works do not impact on the designated bird species. The Applicant had proposed to do this in its environmental statement.</p> <p>We have added operational controls requiring that silt curtains are available on site for use in containing any silt mobilised into the water from either the dredging or piling works. The Applicant had proposed the use of silt curtains as a mitigation measure in its environmental statement.</p> <p>We have not undertaken formal consultation with Natural England on the designated sites as we concluded that there was no likely significant effect nor likely damage on the designated features of the sites. We have provided Natural England with a copy of our CRoW Appendix 4 SSSI assessment and our Stage 1 Habitats Regulations Assessment for their information only.</p>	
Risk Assessment, Management System and Operating Techniques		
Flood and land drainage risk	<p>We have reviewed the Applicant's assessment of the flood and land drainage risks from the activity. The Applicant's risk assessment is satisfactory.</p> <p>The Applicant has undertaken hydraulic flood risk modelling and detailed the finding into a Flood Risk Assessment. The assessment shows that the impacts on flood risk and land drainage from this activity can be categorised as insignificant. We have assessed this model and its findings as suitable for use in both planning and permitting purposes. Detailed as documents numbered 9 and 10 in Annex 3 – Table 1 below and available on the public register.</p>	✓
Environmental risk	We have reviewed the Applicant's assessment of the environmental risks from the activity.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We identified a number of concerns with the applicant's risk assessment and required additional Environment Agency assessment. Our additional assessment is detailed in the points below:</p> <p><u>Eels</u></p> <p>The project aims to exclude fish and eels from Hoveton Great Broad by installing 2mm screens across the entrances to the water body. From the designs it appears that these screens will prevent any eel present in the Broad from being able to migrate downstream.</p> <p>We understand that the Broad will be electro-fished in order to remove as many fish as possible. Eels, especially small eels, are very difficult to catch by electrofishing as they tend to lie in the silt and are not stunned. It is highly likely, therefore, that potentially high numbers of eels of all age ranges will remain in the Broad and be unable to migrate.</p> <p>To comply with the Eels (England and Wales) Regulations 2009 the operator will have to demonstrate that reasonable measures are being taken to enable silver eels to escape from the isolated Broad to continue their downstream migration. As such we have conditioned that finalised eel passage designs must be submitted and approved by the Environment Agency before works can commence.</p> <p><u>Ecological surveys for Water voles and Otters</u></p> <p>The applicant has not submitted up to date ecological surveys for water voles and otters. Section 8 of the environmental statement (ES) from 2014 does undertake ecological surveys, but are at least 6 years old and so does not provide an assessment of the current risks.</p> <p>Section 8.6 of the ES proposes mitigation assuming that water voles are present on the site. No mitigation is proposed for otters.</p> <p>To comply with the Wildlife and Countryside Act 1981 (as amended) the operator will have to demonstrate that reasonable measures are being taken to ensure that these works do not damage, destroy or obstruct access to water vole burrows.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We have conditioned that the operator must undertake and submit for review up-to-date (within the last year) ecological surveys for water vole and otter prior to the commencement of work and works cannot start until we have approved the updated surveys and any mitigation measures required.</p> <p><u>Dredging and de-silting</u> This activity does not fall under the meanings of a flood risk activity and so have not been permitted. As these activities are directly related to the permitted activity we have included informative on the granted permit letter regarding dredging and de-silting at the fish barrier locations to enable the barriers to be fit flush against the river bed.</p> <p><u>Pontoon</u> A boat and pontoon will be used to assemble the fish barriers at location. This activity does not fall under the meanings of a flood risk activity and so has not been permitted. As this activity is directly related to the permitted activity we have included Informative on the granted permit letter regarding pontoons to ensure that it does not create a hazard.</p> <p>Public web based consultation has been carried out. This consultation has received responses from conservation and heritage organisations and a list of the organisations consulted are available in Annex 2. The consultation responses (Annex 2) were taken into account in the making the permitting decision.</p> <p>The assessment shows that there are environmental impacts from this activity that require control and mitigation through condition 2.3.5 (protected species) and Table S1.1 - limits of the activities - of the permit.</p>	
Management System	The applicant has confirmed in its declaration that it has a management system that meets the expectations in our published guidance on preparing a management system, including the plan detailing the method of work (“the Method of Work”).	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	There is no known reason to consider that the applicant will not have the management systems in place to enable it to comply with the permit conditions.	
Operating techniques	<p>We have reviewed the Method of Work proposed by the applicant.</p> <p>The Applicant has provided a Method of Work detailing the working methods for how the activity will be carried out and the measures used to manage the risks identified.</p> <p>We consider the Method of Work to be satisfactory. Due to the level of risk and complexity of the activities, we have imposed a condition incorporating the Method of Work the Applicant has provided into the permit. The decision was taken in accordance with our published guidance on preparing Management Systems and Operator Competence.</p>	✓
Monitoring and Mitigation	<p>The Applicant has provided a Fisheries Improvement Programme (Document numbered 16 in Annex 3 – Table 1) detailing the monitoring activity that has taken place in preparation for the project and will continue during the lifetime of the fish barriers being in place. This programme also includes habitat mitigation measures that will deliver fishery related habitat improvement works in Decoy Broad, Hoveton Marshes and the wider Broadland system. Natural England will set up a Hoveton Monitoring Advisory Group to oversee the implementation of the plan. In addition to the Fisheries Improvement Programme it is necessary, in light of this novel scheme in this Broads' environment, to monitor the impact of the biomanipulation on HGB and HB, to ensure that any unforeseen impacts may be managed and mitigated where necessary. It is, therefore, proposed that the Fisheries Improvement Programme and the further monitoring and mitigation of the impacts will be incorporated within the permit.</p>	✓
The permit conditions		
Updating permit conditions during consolidation.	This is not applicable to this permit application.	N/A

Aspect considered	Justification / Detail	Criteria met
		Yes
Conditions that will run with the land	Based on the information submitted in the application, we consider that it is NOT necessary to impose conditions that relate to the operation or maintenance of a structure or works or to secure the Environment Agency's access to any structure works or watercourse, and are expressed to apply from time to time.	N/A
Incorporating documents provided in the application	<p>We have specified that the applicant must operate the permit in accordance with specified documents or information received as part of the determination process. The descriptions of the documents or information are specified in the Table S1.1 Limits of Activities and Table S1.2 Operating Techniques section of n the permit.</p> <p>The incorporated documents and information outline the measures that should be adhered to by the applicant to ensure that any flood risk and environmental concerns are mitigated or reduced and to comply with the conditions on the permit.</p>	✓
Notifications	<p>We have specified that notification should be given prior to the activity being commenced and following the activity being completed.</p> <p>We require this so that we have accurate records of where activities that affect flood risk are being carried out at any time, so that we are able to effectively manage flood risk in the catchment. It also enables us to carry out compliance checking in a proportionate way.</p>	✓
Operator Competence		
Operator competence	<p>The operator will be responsible for ensuring that it has the technical competence to carry out the activity in accordance with the permit.</p> <p>There is no known reason to consider that the operator will not have the competence to comply with the permit conditions.</p>	✓
Legal requirements		
Environmental Permitting (England and Wales) Regulations 2016	<p>The Environmental Permitting (England and Wales) Regulations 2016 (EPR) provide as follows:</p> <p>12 Requirement for an environmental permit</p> <p>(1) A person must not, except under and to the extent authorised by an environmental permit—</p> <p>(a) operate a regulated facility, or</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>(b) cause or knowingly permit a water discharge activity or groundwater activity.</p> <p>Regulation 8 – flood risk activity</p> <p>8 Interpretation: regulated facility and class of regulated facility</p> <p>(1) In these Regulations, “regulated facility” means any of the following— [...]</p> <p>(j) a flood risk activity;</p> <p>(3) In these Regulations, a reference to a class of regulated facility is a reference to a class in paragraph (1).</p> <p>Regulation 7 - Operator</p> <p>7 Interpretation: operate a regulated facility and operator</p> <p>In these Regulations—</p> <p>“operate a regulated facility” means—</p> <p>(a) operate an installation[, mobile plant, a medium combustion plant or a specified generator], or</p> <p>(b) carry on a waste operation, mining waste operation, radioactive substances activity, water discharge activity, groundwater activity, small waste incineration plant operation, solvent emission activity or flood risk activity;</p> <p>“operator”, in relation to a regulated facility, means—</p> <p>(a) the person who has control over the operation of the regulated facility,</p> <p>(b) if the regulated facility has not yet been put into operation, the person who will have control over the regulated facility when it is put into operation, or</p> <p>(c) if a regulated facility authorised by an environmental permit ceases to be in operation, the person who holds the environmental permit.</p> <p>Regulation 69 - Fisheries</p> <p>Under Regulation 69 EPR 2016 we must have due regard to the interests of fisheries when exercising functions relating to a flood risk activity.</p> <p>We have had due regard to interests of fisheries in making our decision and have balanced those interests against our other statutory duties including those under the Water Environment (Water Framework Directive) Regulations 2017 to exercise our functions so as to secure compliance</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>with the requirements of the Water Framework Directive (WFD) including improving the status of water bodies which is the intended aim of these works.</p> <p>13 Grant of an environmental permit</p> <p>(1) On the application of an operator, the regulator may grant the operator a permit (an “environmental permit”) authorising—</p> <p>(a) the operation of a regulated facility, and</p> <p>(b) that operator as the person authorised to operate that regulated facility.</p> <p>(2) Regulation 17 applies in relation to the grant of a single permit authorising the operation of more than one regulated facility by the same operator.</p> <p>(3) Part 1 of Schedule 5 applies in relation to an application for the grant of an environmental permit.</p> <p>Schedule 5</p> <p>Duty to consider representations</p> <p>11</p> <p>Before it determines an application or makes a regulator-initiated variation, the regulator must consider any representation—</p> <p>(a) made pursuant to paragraph 6(1)(b), 8(2)(b) or 9(4)(c), or</p> <p>(b) sent to it under paragraph 10(3)(b).</p> <p>Duty to determine an application</p> <p>12</p> <p>(1) The regulator must grant or refuse a duly-made application.</p> <p>(2) Except in the case of an application for the surrender of an environmental permit in whole, the regulator may grant an application subject to such conditions as it sees fit.</p> <p>(3) But—</p> <p>(a) variations of an environmental permit in relation to the grant of an application for variation, transfer in whole or in part, or partial surrender must be in consequence of the variation, transfer or partial surrender, as the case may be and</p> <p>(b) if granting an application for partial transfer, the regulator must grant a new environmental permit to the transferee subject to the same conditions as the original permit, varied in consequence of the partial transfer.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We must impose conditions to secure the objectives that apply to flood risk environmental permitting set out at paragraph 5 of schedule 25 of EPR which provides as follows:</p> <p>Exercise of relevant functions</p> <p>5</p> <p>The regulator must exercise its relevant functions for the purposes of achieving the following objectives—</p> <ul style="list-style-type: none"> (a) managing flood risk; (b) managing impacts on land drainage; (c) environmental protection. <p>Guidance on the implementation of the EPR is provided in “Environmental Permitting: Core guidance For the Environmental Permitting (England and Wales) Regulations 2016” (last revised March 2020) published on Gov.UK</p>	
Environment Act 1995	<p>(i) Section 4 (Pursuit of Sustainable Development)</p> <p>We are required to contribute towards achieving sustainable development, as considered appropriate by Ministers and set out in guidance issued to us. The Secretary of State for Environment, Food and Rural Affairs has issued <i>The Environment Agency’s Objectives and Contribution to Sustainable Development: Statutory Guidance (December 2002)</i>. This document:</p> <p style="padding-left: 40px;"><i>“provides guidance to the Agency on such matters as the formulation of approaches that the Agency should take to its work, decisions about priorities for the Agency and the allocation of resources. It is not directly applicable to individual regulatory decisions of the Agency”.</i></p> <p>(iii) Section 6(1) (Conservation Duties with Regard to Water)</p> <p>We have a duty to the extent we consider it desirable generally to promote the conservation and enhancement of the natural beauty and amenity of inland and coastal waters and the land associated with such waters, and the conservation of flora and fauna which are dependent on an aquatic environment.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We consider that no additional or different conditions are appropriate for this Permit.</p> <p>(iv) Section 6(6) (Fisheries)</p> <p>We have a duty to maintain, improve and develop fisheries of salmon, trout, eels, lampreys, smelt and freshwater fish.</p> <p>For eels the applicant has added eel passes to the fish barriers and we have conditioned that the final eel pass designs must be approved by us. See Annex 1 – Environmental risk for more detail.</p> <p>For other fish we have considered technical evidence from both the Applicant and our Fisheries, Biodiversity and Geomorphology team within our decision making and have included conditions. See Annex 1 – Water Framework Directive for more detail.</p> <p>We have balanced our fisheries duty with our other statutory duties including our WFD duties and concluded that the proposal does not compromise this duty which is not absolute and applies to all fish species not just bream.</p> <p>(v) Section 7 (General Environmental Duties)</p> <p>This places a duty on us, when considering any proposal relating to our functions, to have regard amongst other things to any effect which the proposals would have on sites of archaeological, architectural, or historic interest; the economic and social well-being of local communities in rural areas; and to take into account any effect which the proposals would have on the beauty or amenity of any rural or urban area or on any such flora, fauna, features, buildings, sites or objects.</p> <p>Under section 7(1)(a) we have a duty to further the enhancement and conservation of flora, fauna and special features for flood risk activity permit.</p> <p>We considered whether we should impose any additional or different requirements in terms of our duty to have regard to the various conservation objectives set out in Section 7, but concluded that we should not.</p> <p>We reached this conclusion for the following reasons:</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ol style="list-style-type: none"> 1. There are no listed buildings, heritage at risk, protected wrecks, historic battlefields, scheduled ancient monuments or world heritage sites within a minimum of 700 metres of the three barrier locations. As such no sites of archaeological, architectural, or historic interest are affected. 2. The work locations are not within an area of outstanding natural beauty, they are set back from the main river in a wooded area and most of the structures are set at the level of the river bank. The structure is made of wood and so could be considered an improvement to existing metal gates. As such we feel that we have taken account of any effect which the proposals would have on the beauty or amenity of the rural location. 3. These works are likely to bring jobs / money into the area while the works are undertaken, so may have an economic benefit. More detail on economic effects can be found in the “costs and benefits section below. 4. We feel there is no likelihood of negative effect on the social well-being of local communities. As part of the wider scheme at Hoveton Great Broad, there have been a number of works undertaken to increase the public’s access to the broad via a boat mooring, walkway and bird hides. This could be seen as having a positive impact on the social well-being of local communities. 5. Both the supporting documents the Applicant provided and our assessment in this document show no significant impact on flora, fauna, features, buildings, sites or objects. See Annex 1 sections “Environmental Risk” and “Biodiversity, Heritage, Landscape and Nature Conservation” for more detail on our assessment of flora, fauna, features and sites. <p>(vi) Section 39 (Costs and Benefits)</p> <p>We have a duty to take into account the likely costs and benefits of our decisions on the applications (‘costs’ being defined as including costs to the environment as well as any person). This duty, however, does not affect our obligation to discharge any duties imposed upon us in other legislative provisions.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>In so far as relevant we consider that the costs that the permit may impose on the applicant are reasonable and proportionate in terms of the benefits it provides.</p> <p>In coming to this conclusion on costs and benefits we have assessed the following:</p> <ol style="list-style-type: none"> 1. These works form an integral part of a £4.5 million scheme to deliver environmental benefit to both the ecological and water quality elements of Water Framework Directive that are required to be delivered by 2027. As well as delivering environmental benefit to the designated sites (Bure Broads and Marshes SSSI, The Broads SAC, Broadland SPA & Broadland Ramsar). Score of +1. 2. These works are likely to bring jobs / money into the area while the works are undertaken, so may have an economic benefit to the local economy. 3. We acknowledge concerns from the public consultation on negative impacts affecting angling tourism, which brings in a purported £100 million to the local economy. Our assessment of the evidence on impact to fish has concluded that there will not be no detrimental impacts to fish (more detail on our reasons can be found in Annex 1 section on “WFD”). <p>The works are a novel undertaking and as such there are unknowns that cannot be assessed. These unknowns have the potential to result in risks of negative impact to fish. As such we have incorporated both the Fisheries Improvement Programme into the permit and required that, where, due to unforeseen circumstances, the Environment Agency determines the fish barriers need to be opened to fish passage, to avoid significant harm to fish.</p>	
<p>Section 108 Deregulation Act 2015</p> <p>Growth duty</p>	<p>We considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>In the Environment Act 1995 section above we have assessed the economic benefits and costs as a result of the works. We conclude that there are economic and environmental benefits from the scheme, which outweigh the potential negative impact on the economic activities of the fisheries. We have conditioned mitigation measures to</p>	<p>✓</p>

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>minimise the potential impacts on the fisheries as also detailed in the economic benefits and costs part of the Environment Act 1995 section above.</p> <p>Paragraph 1.3 of the statutory guidance issued by the Department of Business, Energy and Industrial Strategy in March 2017 says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards. It also ensures that any pollution that may arise from the regulated facility does not adversely affect local businesses.</p>	
Human Rights Act 1998	<p>We have considered potential interference with rights addressed by the European Convention on Human Rights in reaching our decision and consider that our decision is compatible with our duties under the Human Rights Act 1998. In particular, we have considered the right to life (Article 2), the right to a fair trial (Article 6), the right to respect for private and family life (Article 8) and the right to protection of property (Article 1, First Protocol). We do not believe that Convention rights are engaged in relation to this determination.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Countryside and Rights of Way Act 2000 (CROW 2000)	Section 85 of this Act imposes a duty on Environment Agency to have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty (AONB). There is no AONB which could be affected by the proposed activities.	✓
Wildlife and Countryside Act 1981	<p>Under section 28G of the Wildlife and Countryside Act 1981 the Environment Agency has a duty to take reasonable steps to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which a site is of special scientific interest. Under section 28I the Environment Agency has a duty to consult Natural England in relation to any permit that is likely to damage SSSIs.</p> <p>We assessed the Application and concluded that the proposed works will not damage the special features of any SSSI. This was recorded on a CROW Appendix 4 form.</p> <p>Natural England was sent a copy of the CRoW Appendix 4 for their information only.</p> <p>The Wildlife and Countryside Act (CRoW) assessment is summarised in greater detail in section “Annex 1 - Biodiversity, Heritage, Landscape and Nature Conservation” of this document. A copy of the full Appendix 4 Assessment can be found on the public register.</p>	✓
Natural Environment and Rural Communities Act 2006	<p>Section 40 of this Act requires us to have regard, so far as is consistent with the proper exercise of our functions, to the purpose of conserving biodiversity.</p> <p>The works are designed to reinstate a more balanced species rich community structure which would benefit biodiversity. Within Annexes 1 and 2 of this document we have considered whether these works will impact on the environment and ecology of the surrounding area including protected features of designated sites, protected species and the wider flora and fauna. Detail on these various considerations can be found in other sections of this document.</p> <p>We have done so and consider that no different or additional conditions in the Permit are required.</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
Countryside Act 1968	<p>Section 11 imposes a duty on the Environment Agency to exercise its functions relating to any land, having regard to the desirability of conserving the natural beauty and amenity of the countryside including wildlife.</p> <p>We have also had regard for conserving the natural beauty and amenity of the countryside including wildlife in our assessment of our general environmental duties in Section 7 of the Environment Act 1995. We considered the following:</p> <ol style="list-style-type: none"> 1. The work locations are not within an area of outstanding natural beauty, they are set back from the main river in a wooded area and most of the structures are set at the level of the river bank. The structure is made of wood and so could be considered an improvement to existing metal gates. As such we feel that we have taken account of any effect which the proposals would have on the beauty or amenity of the countryside. 2. Both the supporting documents the Applicant provided and our assessment in this document show no significant impact wildlife. See Annex 1 sections "Environmental Risk" and "Biodiversity, Heritage, Landscape and Nature Conservation" for more detail on our assessment of wildlife. <p>We have done so and consider that no different or additional conditions in the Permit are required.</p>	✓
National Parks and Access to the Countryside Act 1949	<p>Section 11A and section 5(1) imposes a duty on the Environment Agency when exercising its functions in relation to land in a National Park, to have regard to the purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the areas, and of promoting opportunities for the understanding and enjoyment of National Parks by the public.</p> <ol style="list-style-type: none"> 1. There are no listed buildings, heritage at risk, protected wrecks, historic battlefields, scheduled ancient monuments or world heritage sites within a minimum of 700 metres of the three barrier locations. As such no sites of cultural heritage are impacted by the works. 2. The work locations are not within an area of outstanding natural beauty, they are set back from the main river in a wooded area and most of the structures are set at the level of the river bank. The 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>structure is made of wood and so could be considered an improvement to existing metal gates. As such we feel that we have taken account of any effect which the proposals would have on the beauty or amenity of the rural location.</p> <p>We have done so and consider that no different or additional conditions in the Permit are required.</p>	
Norfolk and Suffolk Broads Act 1988	<p>Section 17A imposes a duty on the Environment Agency when exercising or performing any functions in relation to, or so as to affect, land in the Broads, to have regard to the purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the Broads; promoting opportunities for the understanding and enjoyment of the special qualities of the Broads by the public; and protecting the interests of navigation.</p> <p>The Broads Authority was consulted as part of this permit application and their comments are available in Annex 2 consultation response number 79. The key points of the Broad Authority comment are:</p> <ol style="list-style-type: none"> 1. The Broads Authority supports balanced multi-benefit projects supporting both biodiversity restoration and the fishery/angling sector. 2. The Broads Authority have no further information to add to the submitted Flood Risk Assessment which concludes that the development would not increase the risk of river flooding. <p>We are satisfied that the project will conserve and enhance the natural beauty, wildlife and cultural heritage of the Broads; promoting opportunities for the understanding and enjoyment of the special qualities of the Broads by the public; and protecting the interests of navigation. In concluding this we have considered the following:</p> <ol style="list-style-type: none"> 1. We do not believe the project will materially change the current navigation arrangement from the locked metal gates across Foxborrow dyke and the dam locations. 2. The work locations are not within an area of outstanding natural beauty, they are set back from the main river in a wooded area and most of the 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>structures are set at the level of the river bank. The structure is made of wood and so could be considered an improvement to existing metal gates. As such we feel that we have taken account of any effect which the proposals would have on conserving and enhancing the natural beauty of the Broads.</p> <ol style="list-style-type: none"> 3. Both the supporting documents the Applicant provided and our assessment in this document show no significant impact on wildlife. See Annex 1 sections “Environmental Risk” and “Biodiversity, Heritage, Landscape and Nature Conservation” for more detail on our assessment of impacts on wildlife. 4. There are no listed buildings, heritage at risk, protected wrecks, historic battlefields, scheduled ancient monuments or world heritage sites within a minimum of 700 metres of the three barrier locations. As such no sites of cultural heritage are impacted by the works. 5. We feel the wider aims of the scheme that are not directly covered in the permitted activities will promote opportunities for the understanding and enjoyment of the special qualities of the Broads by the public. As part of the wider scheme at Hoveton Great Broad, there have been a number of works undertaken to increase the public’s access to the broad via a boat mooring, walkway and bird hides. 	
<p>Conservation of Habitats and Species Regulations 2017</p>	<p>We have assessed the Application in accordance with our guidance and concluded that there will be no likely significant effects on any European Site.</p> <p>The Habitats Regulations Assessment is summarised in greater detail in section “Annex 1 - Biodiversity, Heritage, Landscape and Nature Conservation” of this document. The Habitats Regulations Assessment is referenced as document numbered 20 in Annex 3 – Table 1 and is available on the public register.</p> <p>We have also considered our general duties under Regulation 9(3) to have regard to the requirements of the Habitats Directive in the exercise of our powers and under Regulation 10 in relation to wild bird habitat to take such steps in the exercise of their functions as they consider appropriate so far as lies within our powers to</p>	<p>✓</p>

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>secure preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds.</p> <p>We considered whether we should impose any additional or different requirements in the permit in terms of these duties but concluded that we should not.</p>	
<p>Water Environment (Water Framework Directive) Regulations 2017</p>	<p>Detailed consideration as to how the requirements of these Regulations have been applied in this permit decision are set out in Annex 1 above.</p> <p>Consideration has been given to whether any additional requirements should be imposed in terms of the Environment Agency's duty under regulation 3 to exercise its functions so as to secure compliance with the requirements of the Water Framework Directive, Groundwater Directive and the Environmental Quality Standards Directive through, amongst other things, environmental permits, and its obligation in regulation 33 to have regard to the river basin management plan (RBMP) approved under regulation 31 and any supplementary plans prepared under regulation 32. However, we are of the view that the proposed permit conditions are sufficient in this regard and no other appropriate requirements have been identified.</p> <p>We are satisfied that granting this application with the conditions proposed would not cause the current status of the water body to deteriorate, and that it will not compromise the ability of this water body to achieve good status by 2027 and will enhance the achievement of good ecological status for macrophytes and phytoplankton.</p> <p>In taking this decision we have applied the physico-chemical standards, environmental quality standards and biological element status boundary values for surface water bodies specified in Articles 8-10 of, and Schedule 3 to, the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Local Democracy, Economic Development and Construction Act 2009	<p><u>Duty to Involve</u></p> <p>Section 23 of the Local Democracy, Economic Development and Construction Act 2009 require us where we consider it appropriate to take such steps as we consider appropriate to secure the involvement of interested persons in the exercise of our functions by providing them with information, consulting them or involving them in any other way. Section 24 requires us to have regard to any Secretary of State guidance as to how we should do that.</p> <p>The way in which the Environment Agency has consulted with the public and other interested parties is set out in section “Annex 2 - Consultation and web publicising” of this document. The way in which we have taken account of the representations we have received is set out in Annex 2. Our public consultation duties are also set out in the Environmental Permitting Regulations, our statutory Public Participation Statement and the “Environmental permitting: Core guidance For the Environmental Permitting (England and Wales) Regulations 2016” (as revised March 2020) published on Gov.UK which implement the requirements of the Public Participation Directive. In addition to meeting our consultation responsibilities, we have also taken account of our guidance in Environment Agency Guidance Note RGS6 and the Environment Agency’s Building Trust with Communities toolkit.</p>	✓

Annex 2: Consultation and web publicising

Formal consultation with statutory conservation and heritage consultees is carried out where appropriate, in accordance with our guidance.

Web publication of the application is only carried out for certain types of application, which have a likely significant impact on the environment, and in line with our guidance.

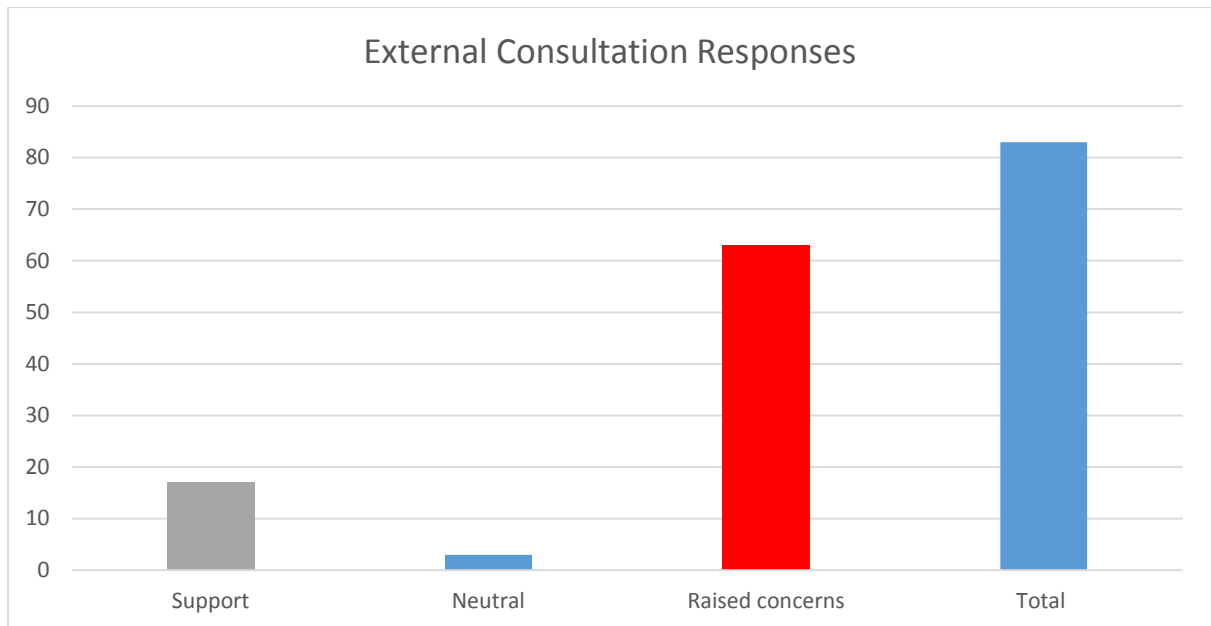
Our assessment of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

As part of our public web based consultation we notified a number of public bodies of the consultation, so that they could also provide a response if they wanted to. Below is a list of organisations and public bodies that were notified:

- Natural England
- Broads Authority
- Angling Trust
- Broads Angling Services Group
- Norfolk Wildlife Trust
- Norfolk Rivers Trust
- RSPB
- National Trust
- Essex and Suffolk Water
- Hoveton Parish Council
- Horning Parish Council
- Woodbastwick Parish Council
- Salhouse Parish Council
- Wroxham Parish Council
- Hoveton Estate
- Salhouse Estate
- Bournemouth University

Assessment of the Public consultation

We have received a total of 83 external public consultation responses to the web publication public consultation. Of these responses 17 are in favour of the works proposed in the permit application, 3 responses are neutral and 63 of the responses have concerns with the works proposed in the permit application, as shown on the table below:



These 83 responses have provided comments on a range of issues, which are summarised in the 'Issues raised' table and bullet points below:

Issues raised	Number of responses
Concerns on impact to fish	55
Supporting the Environmental Benefits of the scheme	14
Concerns on the impact to angling tourism	9
Concerns on navigation rights	9
Concerns on the use of public funds	7
Concerns on impacts to otters	5
Concerns on the impact to flood risk	3
Recommendations of an alternative option of partial exclusion	2
Concerns on the barrier design	1

Assessment of public comments

The key issues raised in the public consultation are below with our response on how we have taken account of the comments received in our permit decision making.

Fish

Issues raised:

- A significant number (55) of the responses have raised concerns on these proposed works creating a negative impact on fish populations. 25 specifically mention impacts on Bream / Roach and Rudd, with 8 responses mentioning Pike.
- These concerns relate to the loss of Hoveton Great Broad as habitat for fish breeding, feeding and refuge.
- A number of the public consultation responses provide additional information that we have considered in our assessment and are available below.

The key arguments in support of the scheme are:

1. The Environment Agency and Natural England both have statutory duties to improve a water body's status to favourable conservation status.
2. It is not known whether bream numbers could be impacted by exclusion from the Broad, but they are known as an adaptive species that can survive in a wide range of habitats, many of which are known to exist throughout the rest of the Northern Broads catchment. As such it is deemed that while there could be an impact it is likely to not be significant and that the bream would quickly adapt.
3. Compensatory habitat mitigation measures have been proposed and set out within the Fisheries Improvement Programme (Document numbered 16 in Annex 3 – Table).
4. Monitoring can be undertaken to assess whether there is an impact and if a negative impact is noticed, the fish barriers can be quickly opened to mitigate this.
5. The project is design to improve a water body that is in a poor condition, so that it can contain a wider variety of species and create a more stable environment.

The key arguments against the scheme are:

1. The WFD assessment submitted is from 2014 and so does not take account of the last 3 years' worth of assessment of bream behaviours across the Northern Broads. As such the WFD assessment is inadequate.
2. The WFD assessment concludes that there is no negative impact on the fish, but the WFD assessment provides no evidence as to how they have deemed that it will have no impact.
3. A respondent has undertaken a fish stock model and assessment and concluded that the fish barriers will significantly impact on Bream stocks across the Northern Broads (Rivers Bure, Ant and Thurne) unless there is either a change in methodology or sufficient mitigation in place. This would impact on at least 10 other WFD water bodies.
4. Excluding fish (bream, roach etc...) from Hoveton Great Broad will impact on their behaviour (e.g. loss of prime breeding habitat, refuge from boat traffic etc...) and the Applicant's assessment doesn't include sufficient mitigation on this.
5. The applicant's assessment looks at Hoveton Great Broad in isolation and doesn't take account of the intrinsic role that it plays across the River Bure catchment.
6. Is it right to alter the current fish assemblage to something different?
7. Fish will enter the broad during flood events that overtop the barrier, as such there is a large commitment to remove fish after a flood event.

Our Response: There are many points raised both in support of the scheme and with concerns on impacts to fish. We have provided details on our conclusions on issues surrounding fish within the WFD section in Annex 1 above. We have taken account of all the comments provided in coming to our decision.

In response to the arguments against the scheme:

1. We have required and received an updated WFD assessment addenda from the Applicant to ensure the WFD Assessment is up to date and addresses the concerns raised.
2. There has been significant supporting information provided including within the WFD assessment addenda and as detailed in Annex 1, we conclude that the Applicant's evidence is more scientifically rigorous and has been given a higher weighting as such.
3. We note the fish stock modelling evidence provided however this evidence is not scientifically rigorous enough and has been given a lower weighting in comparison to the Applicant's evidence when coming to our decision.
4. Fish behaviour will change once excluded from HGB and HB. However while HGB and HB was a preferential breeding location for bream in 2019 there are at least 10 water bodies that they can use instead and the evidence reviewed concludes that these changes in behaviour are unlikely to result in significant impacts to fish number. There are other water bodies (broads) that can be used as refuges from river boat traffic. The Applicant has submitted the Fisheries Improvement Programme, (Document numbered 16 in Annex 3 – Table 1). This document provides for the establishment of a steering group made up of representatives of Natural England, the Environment Agency and Angling Groups. The group will oversee monitoring of HGB and HB and improvements adjacent to HGB.
5. We note that HGB and HD plays an important role, as one of a number of connected water bodies. Our assessment has taken account of the interconnected nature of these water bodies, when assessing all the evidence submitted and in balancing and weighing up the various ecological points for and against the scheme.
6. There isn't a fish element assessment within this WFD water body. This would have helped in determining what a good status fish assemblage for this water body is. Based on the evidence reviewed a more diverse aquatic biodiversity would be considered betterment under WFD (see section 4.3.1 of the document entitled Hoveton Project: creating a sustainable future for the Bure system) (Document numbered 17 in Annex 3 – Table 1) and changes in fish numbers of individual species would not automatically be considered as deterioration under WFD.
7. It is acknowledged that it is unlikely that all fish will be removed from HGB and HG and remain excluded for the full 10 years. The aim is to reduce and maintain a low enough level of fish numbers to ensure that they do not impact on the biomanipulation objectives of the scheme.

Environmental Benefits

Issues raised: A number of the responses in favour of this scheme have highlighted the environmental benefits of this scheme as why this permit application should be granted.

Our Response: We agree that this scheme will have the following environmental benefits of improved water clarity, increased macrophyte abundance and reduced algal dominance addressing failing WFD biological quality elements and Habitats Directive targets.

Angling Tourism

Issues raised: A number of the responses have raised concerns on these proposed works creating a negative impact on angling tourism to the broads, if fish stocks are detrimentally impacted by these proposals.

Our Response: We have carefully assessed all the information provided in regards to impacts on fish. We have determined that the proposed works are unlikely to cause detrimental harm to fish, but we recognise that as this is a novel scheme there are unknowns that could result in potential risks to certain fish species and have placed conditions on the permit to mitigate this risk.

Angling Tourism is not directly relevant to the determination of a flood risk activity permit and the considerations that we have to address as per paragraph 5 of part 1 of Schedule 25 to the Environmental Permitting Regulations 2016. However, it has been argued that angling tourism could be impacted if the project is perceived to reduce the density of bream currently found in the whole of Broadland fishery. There appears to be little direct evidence that this will occur but it has been taken in to consideration with a lower degree of confidence when considering the weight of evidence in the WFD section of Appendix 1 on the effects on bream and the benefits of the project in meeting WFD objectives.

Navigation

Issues raised: A number of the responses have raised concerns on these proposed works creating an additional barrier to navigation.

Our Response: We note that planning permission has been approved for these works and is currently subject to the discharge of planning conditions. The navigation issues would have been assessed by the planning authority within their responsibilities on this planning permission.

In our assessment of the fish barriers we note that they are designed with gates in them to allow access. The current access to Hoveton Great Broad is via locked gates on these river channels. As such these fish barriers will not significantly alter the current navigation access that is in place.

We have conditioned that the fish barriers must be removed after 10 years, at which point the current navigation arrangement will apply again.

This issue is not directly relevant to the determination of a flood risk activity permit and the considerations that we have to address as per paragraph 5 of part 1 of Schedule 25 to the Environmental Permitting Regulations 2016. As such this issue has a lower weighting in our determination when balanced against the other duties considered as part of this decision..

Public Funds

Issues raised: A number of the responses have raised concerns on these proposed works being a 'bad' use of public funds on a private broad.

Our Response: The Environment Agency has considered the costs and benefits of the scheme, as well as the economic and social wellbeing impacts of the scheme in coming to the conclusion that the scheme will provide economic, social and environmental benefits, under our relevant legal duties.

However this issue is not directly relevant to the determination of a flood risk activity permit and the considerations that we have to address as per paragraph 5 of part 1 of Schedule 25 to the Environmental Permitting Regulations 2016. As such this issue has a lower weighting in our determination.

Otters

Issues raised: A number of the responses have raised concerns on these proposed works detrimentally impacting on otters as their prey (fish) will be excluded from Hoveton Great Broad.

Our Response: The Applicant's environmental statement (section 8) assesses the risks of the scheme on otters and concludes "Biomaniipulation will reduce the availability of fish in the Broads but there will still be some fish present and other hunting opportunities will be still be locally available" and there will be a neutral impact.

The Environment Agency has conditioned that up-to-date ecological surveys must be undertaken for otters and mitigation plans updated as required to ensure no harm is done to otters during the installation of the fish barriers.

Flooding

Issues raised: A number of the responses have raised concerns on these proposed works detrimentally impacting on flooding in the local area.

Our Response: The Applicant has undertaken flood risk modelling, which shows that the scheme as designed will not impact on flood risk. We have assessed this model and its findings as suitable for use in both planning and permitting purposes. The modelling report and structure designs have been incorporated into the permit to require that the fish barriers are built as designed.

Partial Exclusion alternative

Issues raised: A number of the responses have raised concerns on these proposed works detrimentally impacting on fish and recommend an alternative partial exclusion, which has been undertaken on a number of broads in the Norfolk Broads.

Our Response: We required additional information from the applicant on alternative options that have been considered and received a report

referenced: Hoveton Great Broad Restoration Project – alternative options considered (Document numbered 14 in Annex 3 – Table 1). This document states that partial exclusion as an alternative bio-manipulation method is less likely to be successful. Some of the key points are:

- There is published evidence that smaller scale enclosures have a reduced chance of success once removed, or once fish get back in. This has been witnessed many times in Broadland and in HGB itself.
- The larger the scale of exclusion the greater the chance of success when aiming to create stable macrophyte beds.
- With partial exclusion there is a significantly higher risk of holes forming through a large expanse of netting that allow fish access into the excluded area.
- Reducing the scope of the project will reduce the chances of delivering the SAC conservation objectives and WFD objectives for the whole of the site. Both HGB and HB in their entirety are designated sites under the Habitats Directive. Leaving HB unaffected would require opening the Broad to the River Bure and would be difficult to justify given the possible deterioration in conservation status this could cause.

Following this evidence we conclude that partial exclusion as an alternative option is not viable in this instance.

Barrier Design

Issues raised: One response is concerned that the proposed fish barriers are made of gabion baskets filled with stone and has concerns that they won't exclude fish and will eventually cause a blockage of the channels.

Our Response: The proposed barriers are wooden piles with a 2mm mesh screwed on to the piles in the channel. They have been designed to be easily removable. The proposed barriers are not made of gabion baskets and will not be filled with stone, so will not form a risk of blockage.

The Applicant's designs will be incorporated into the permit to ensure the barrier designs assessed are followed. The permit includes a condition that they must be removed after they are no longer required or after 10 years.

Additional Evidence:

A number of the responses provide more extensive additional evidence. These responses have been highlighted in the table below. These responses are detailed in Table A2.1 below. A number of the responses are many pages long and so have been summarised below. The full responses are saved with the permit record and can be made available.

Table A2.1

Additional evidence provided In following responses:	Consultation Summary ref:
ANON-BRJC-AD69-N	Response 7
ANON-BRJC-AD6V-J	Response 10
ANON-BRJC-AD6H-4	Response 21
ANON-BRJC-ADHC-H	Response 35
ANON-BRJC-ADUW-J	Response 47
ANON-BRJC-ADUQ-C	Response 55
ANON-BRJC-ADU3-E	Response 57
ANON-BRJC-ADUJ-5	Response 58
BHLF-BRJC-ADQM-4	Response 68
ANON-BRJC-ADUM-8	Response 72
BHLF-BRJC-ADQD-U	Response 80
BHLF-BRJC-ADQQ-8	Response 81
BHLF-BRJC-ADQV-D	Response 82

1.

Response received from
An Individual (response reference: ANON-BRJC-AD6Z-P)
Brief summary of issues raised
I fully support this work. I led similar work in other parts of the Broadlands network, such as at Barton Broad, and it has been a great success. Once completed, the restored Broads will provide an even better and much more diverse habitat and environment for a wide range of fish species - so any short term adverse impact, which I believe will be negligible, will be easily offset by the long-term much greater positive impact.
<u>REDACTED</u>
Summary of actions taken or show how this has been covered
<u>REDACTED</u> - Name of Individual
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

2.

Response received from
An Individual (response reference: ANON-BRJC-AD66-J)
Brief summary of issues raised
I am very concerned that fish exclusion measures will be detrimental to bream stocks. Studies carried out have shown that this is the only substantial spawning ground for bream in the northern broads. Preventing bream from spawning will cause their numbers to decline, which will then affect the overall eco system, putting pressure on other silver fish such as roach and rudd. Bream are a valuable prey for lots of apex predator both aquatic and avian

tis could destroy the eco system in as little as 15 years. I believe this measure goes against the EU Water Framework Directive.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

3.

Response received from

An Individual (response reference: ANON-BRJC-AD6U-H)

Brief summary of issues raised

I object to the installation of fish barriers. Hoveton Great Broad contains the local spawning grounds for coarse fish (pike and bream being the most significant). There is a migratory cycle between Hoveton Great Broad, Wroxham Broad and the River Bure and dykes at Wroxham. This will firstly be bad for the fish population and secondly cost the entire area tourism revenue from fishermen.

There is an undertaking in the Inclosure Award for Hoveton St. John that future owners will keep these accesses open - to specified depths and widths.

Further I maintain that a public right of navigation exists across Hoveton Great Broad. Illegal closure by the owner has not extinguished these rights. The Broad can be shown to be tidal.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

4.

Response received from

An Individual (response reference: ANON-BRJC-AD64-G)

Brief summary of issues raised

I think it should be emphasized that should it be proved that the barriers are causing or adding to flooding from the river the barriers should be changed so that overtopping can take place at a lower level.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

5.

Response received from

An Individual (response reference: ANON-BRJC-AD65-H)

Brief summary of issues raised

Hoveton Great Broad is both scientifically and practically tidal. The waterway thus enjoys a common right of public navigation and the construction of any barrier in the links between the Broad and the tidal River Bure represent prohibition of a public right of waterborne access. It would appear therefore that a member of the public seeking to navigate the waterway would enjoy a right to remove any such barrier sufficient to gain waterborne access.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

6.

Response received from

An Individual (response reference: ANON-BRJC-AD6D-Z)

Brief summary of issues raised

Hoveton Great Broad has already been illegally closed to navigation. If any public funds are being made available it should be reopened for public navigation, if not the **REDACTED** should be covering every single penny.
History shows previous temporary closures / barriers (Cockshoot Broad) have become permanent so these fish barriers should not be installed

Summary of actions taken or show how this has been covered

Redacted: Surname of an identifiable individual or small group of individuals

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

7.

Response received from

An Individual (response reference: ANON-BRJC-AD69-N)

Brief summary of issues raised

I am deeply concerned about the semi-permanent nature of this activity. Great Hoveton Broad has been illegally annexed from navigation for a number of years, despite significant levels of protest from local residents & boat users.

The scheme as outlined will serve only to exacerbate this situation. These barriers will physically segregate Hoveton Great Broad to navigation for at least 10 years. By looking at what happened at Cockshoot Broad nearby, I can only stress that navigation is a legal right, and any conservation activity planned at Hoveton Great Broads needs to acknowledge this, and reflect it in its design/functionality.

Additionally, this represents another tranche of public money being poured into a scheme with (at best) negligible public access. Why should this be prioritised over navigable areas of the Broads which can be accessed & enjoyed by local residents and visitors?

Finally, it's my understanding that the nature of this scheme will impact negatively on the biodiversity that you otherwise would expect in a Broad and it connected to tidal rivers. Specifically, a significant, and artificial change the food chain would be made by removing the spawning fish in Hoveton Great Broad. As a result, juvenile fish don't consume the waterfleas and as such there is less algae which inhibits water plants ability to flourish. Overall a negative impact.

Specifically, there is a profound impact on the resilience of Bream as a local species, which use HGB as a spawning ground. See here for details; <https://basgonline.org/hoveton-great-broad-impact-on-northern-broads-bream-stock/?fbclid=IwAR1Puw4HhI5JvwWmNpYELNon0LErPS3y3k3mIQGGxMPCxiHoZfaj45Ru5pg>

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

8.

Response received from

An Individual (response reference: ANON-BRJC-AD6Q-D)

Brief summary of issues raised

Appreciate the need for flood defences, but the bream are vital part of the water ecology on the broads and native species. Need to find a way of doing this without disrupting their spawning grounds.

Regards **Redacted**

Summary of actions taken or show how this has been covered

Redacted - Name of Individual

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

9.

Response received from

An Individual (response reference: ANON-BRJC-AD6M-9)

Brief summary of issues raised

The impact into fish stocks if placed for 10 years seem to be clear. The effect on the bream population especially so. A localised solution that will have huge impact into the fishing economy of the area.

The science supporting the decision seems to be based on little fact and lack of supporting evidence from other like schemes.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

10.

Response received from

An Individual (response reference: ANON-BRJC-AD6V-J)

Brief summary of issues raised

I am 75 years of age and have been a boater and angler on the Norfolk Broads for some 40 years I currently own my boat moored at Horning which I spend a large part of the year on and I am also keen on conservation and wildlife in general.

It has long been known that this Broad is the major spawning grounds for Bream and also an important one for Pike on the River Bure and to exclude them and other fish species from the Broad would do considerable long term damage not only to both these species but to the overall ecology of the system, the populations of Pike in particular are in decline at the moment as your own surveys will confirm and anything that interferes with the natural spawning areas is at risk of upsetting the whole balance of the river system including fish eating birds and the now well established Otter population.

While I fully appreciate the need for dredging partially caused by the restricted flow through the Broad and the stopping of navigation I see no reason why this necessitates the removal of the fish and future prevention of their free movement, this work has been carried out on other Broads without these measures and it is simple to provide areas within the Broad netted off from fish to allow improvements in the ecology through recruitment of daphnia etc. if that is required, it would also seem unlikely for this Broad to remain fish free through the natural repopulation by spawn carried by birds etc.

I strongly request that full consideration is given to the long term potential damage to the whole of the Bure systems ecology against the possible benefit to the Broads owners by allowing them to control the biodiversity of the fish population within the Broad, so while I am happy for the Broad to be dredged and to see it returned to a healthy environment for all wildlife I urge that the permission to install fish barriers is rejected

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

11.

Response received from

An Individual (response reference: ANON-BRJC-AD6K-7)

Brief summary of issues raised

The flood risks are historic and well known. The priority should be the welfare of the animals using the broad. This is an important spawning area and a fish barrier would create a problem. If you want the fish population controlled open the broad to boats and fishing to get the waters moving.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

12.

Response received from

An Individual (response reference: ANON-BRJC-AD6C-Y)

Brief summary of issues raised

I am worried that by using the option of 'fish exclusion' this will cause great and lasting harm to Bream stocks.

I've recently read a published study that has given clear evidence that Hoveton Great Broad is the single most important spawning ground for Bream so far as the northern rivers and Broads go.

It does not need a study to prove that if you exclude fish from a safe and large breeding ground they will not simply wander off to another location. Furthermore, it is a great risk to take to think they would, and should their numbers decline this will of course damage other fish up the chain - such as Pike.

But it is not only these 'apex predators' it will cause strain on the other fish and wider eco system such as Roach and Rudd. For goodness sake this is the Norfolk Broads an area that is managed and should have ecology and the promotion of and care to fish and other wildlife at its heart. This simply goes against such.

You cannot exclude one species and not expect anything detrimental to then happen and, it is not only the concern for fish and breeding I have. You need to consider how many visitors to the Broads who go fishing - be it on holiday cruisers, riverside chalets or those who come from other parts of the county for the day to fish will begin to see their own enjoyment collapse as the fish stocks do likewise. Without Anglers the Norfolk Broads would lose perhaps millions of pounds annually on many areas from the shops who sell bait and tackle to the holiday letting companies to the local service industry too.

I therefore strongly object to this plan and finish this with the simple adage "If it is not broke don't fix it"

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

13.

Response received from

An Individual (response reference: ANON-BRJC-AD63-F)

Brief summary of issues raised

I am opposed to this action due to the Broad being an important fish spawning location, I am afraid of declining stocks of fish (Bream primarily) and the impact of this on the eco system in general.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

14.

Response received from

An Individual (response reference: ANON-BRJC-AD6J-6)
Brief summary of issues raised
I don't understand why fish barriers blocking off the whole Broad are needed when Barton Broad was restored several bays were isolated with netting and the fish removed this approach worked, so why not do the same at Hoveton.
In my view this whole project should not be paid for with public money because the public benefit is minimal, the private owner of the Broad has neglected it, he should pay for it restoration.
I realise you will carry on spending public money because you are a Quango and don't have behave in a democratic way.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

15.

Response received from
An Individual (response reference: ANON-BRJC-AD6T-G)
Brief summary of issues raised
I believe this broad was closed to navigation some years ago by private land owners. Lack of navigation and maintenance dredging has caused the silt issues. I fear this is an access issue in disguise, surely as all other waters on the Broads are dredged and kept open so this should represent no issue access for navigation is a fundamental part of the Norfolk Broads and should be maintained alongside conservation and not at its expense. I note the environmental agency has not used the "National park" term and rightly so it has no legal status to be known as such .
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

16.

Response received from
An Individual (response reference: ANON-BRJC-AD62-E)
Brief summary of issues raised
I think this would be hugely detrimental to the fish that are part of the ecosystem you are supposedly trying to help. These broads act as vital spawning grounds for all types of fish and have done for years. I feel this could hugely affect fish stocks on the broads.
Not only this, i don't feel there is a need for this to happen as there is a good amount of aquatic life present including plants.
This should not be allowed to happen
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

17.

Response received from
An Individual (response reference: ANON-BRJC-AD61-D)
Brief summary of issues raised
Hoveton Broad is an important spawning site for many fish that migrate between the river Bure and the broad itself. Excluding fish will mean species like Bream, Roach and Pike will not be able to spawn and will threaten these species in the future.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

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18.

Response received from
An Individual (response reference: ANON-BRJC-AD6S-F)
Brief summary of issues raised
It's a great project that I support whole-heartedly. Removing algae will provide great environmental benefits.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

19.

Response received from
An Individual (response reference: ANON-BRJC-AD6P-C)
Brief summary of issues raised
The Norfolk Broads as a whole are a fantastic habitat for a very wide variety of different species and is a place of sanctuary for most. Any action that is able to provide an improvement to these environments should be greatly encouraged and followed with the utmost care, consideration and positivity to see that this beautiful area continues to host and be home to all our relevant species.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

20.

Response received from
An Individual (response reference: ANON-BRJC-AD6A-W)
Brief summary of issues raised
I feel that Natural England and other publicly funded organisations should not be spending public money on privately owned land, especially taking into consideration that the public and boats are not allowed onto this body of water despite it being tidal and boats have a legal right to navigate any tidal water in Norfolk. I also believe that such an important breeding ground for fish should not be interfered with, the fact that large numbers of fish choose to spawn in this body of water raises the question to me why is it being interfered with and engineered to be what some seem to think of as being a perfect piece of water. (although the wild life and marine life seem to differ on that point)
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

21.

Response received from
An Individual (response reference: ANON-BRJC-AD6H-4)
Brief summary of issues raised
I am deeply concerned that the installation of these barriers will have a massively negative impact on the Breams ability to spawn, and that this will have a significant impact on the northern broads as a fishery and as an ecosystem. The tagging project undertaken by the Environment Agency has proven that Hoveton Great Broad is a hugely significant spawning site. The Broad is used by Bream from across the entire northern broads catchment, individual fish have been tracked from as far afield as Hickling and Barton Broads. These fish have been recorded making huge spawning migrations, some of which have made the journey there for two consecutive years. As part of the EAs project other likely and potential spawning sites have been monitored and investigated. This work has shown that the vast majority of the Bream across the northern catchment use Hoveton Great Broad exclusively and that there is no mitigation option

available to Natural England and any suggestion that the Bream will spawn elsewhere is pure guesswork.

Previous restoration work undertaken across the Broads has been very hit and miss over the years. The few sites larded as a success (Sportsman's Broad / Cockshoot Broad) are all sites which are not connected to the main river network. Once these barriers are removed from Hoveton Great Broad the fish will simply recolonise the Broad and disturb the sediment. My view and the view of the vast majority of local people is that Natural England have done a poor job of risk assessing the consequences of their "restoration project" and are at the point of no return as so much has been invested in the project that to pull out now would be a massive embarrassment and a significant waste of money!

The Environment Agency have a massive duty of care here to do what is right and protect a hugely important spawning site. It is obvious that Natural England cannot be trusted to do the right thing. If Hoveton Great Broad was used as a breeding colony for birds then this project would have never started.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

22.

Response received from

An Individual (response reference: ANON-BRJC-AD6Y-N)

Brief summary of issues raised

I don't agree with the exclusion of fish from Hoveton Great Broad as it has been established this is a critical spawning site for Bream in the northern Broads system.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

23.

Response received from

An Individual (response reference: ANON-BRJC-AD6X-M)

Brief summary of issues raised

Work undertaken so far has identified extensive fish movements between HGB & the main river as well as identifying those same fish moving upstream to Hickling etc

It's apparent that HGB is an important spawning ground & refuge - probably the most important.

Impartial reports by experts have stated that the planned outcomes of this project are by no means a given although there is definitely a massive risk to fish populations on the Bure & bream in particular.

Grant driven & on a private estate part of the governance of this project clearly has no regard for the wider impact & so its fallen on the public to protest this situation which is regrettable as this project should have been nipped in the bud long before it got to this stage .

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

24.

Response received from

An Individual (response reference: ANON-BRJC-ADHE-K)

Brief summary of issues raised

Wrong to stop fish getting to their spawning ground will have Permanent detrimental effect on bream as Hoveton is a unique broad for them and other species this will lose Norfolk businesses large financial loss as visitors come to Norfolk for the bream fishing from all over the country this includes boat hire holiday homes shops etc.

The science from the tracking project and advice from **REDACTED** environment agencies confirm this

Summary of actions taken or show how this has been covered
Redacted – Identifies and individual or a small group of individuals.
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

25.

Response received from
An Individual (response reference: ANON-BRJC-ADHW-5)
Brief summary of issues raised
I think it is totally unacceptable that barriers should be placed across the entrance to the broad to stop the fish accessing the broad. The fish have used the broad ever since the whole of the broads system was created and nothing gives Natural England or anyone the right to exclude those fish. Hoveton Broad is widely regarded to be the main spawning ground for the vast numbers of bream in the Bure system and excluding them from the broad for several years could have a huge bearing on their ability to spawn and reproduce successfully, this could have far reaching consequences on the bream population in years to come and could lead to a total collapse in their population. This would not only have a huge impact on the whole ecosystem, the main impacts being on the pike and otters but also for the local economy as bream are a popular sporting fish and any large decline in their numbers will stop anglers coming to the broads.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

26.

Response received from
An Individual (response reference: ANON-BRJC-ADHF-M)
Brief summary of issues raised
1. The proposed gabion fish barriers are unsuitable for purpose. The filling proposed is understood to be rock lump which will have interstices between the rocks allowing free fish movement. 2. The outer covering of the gabions is likely to disintegrate upon attempted removal resulting in a blocking of the navigation by the rocks filling the gabion.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

27.

Response received from
An Individual (response reference: ANON-BRJC-ADHZ-8)
Brief summary of issues raised
If the work isn't done now it will take longer to fix when the water quality gets even worse on the broad. The broad is also getting very shallow which will affect fish spawning.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

28.

Response received from
An Individual (response reference: ANON-BRJC-ADH6-4)

Brief summary of issues raised
I work as part of a committee running a large reservoir and work closely with local angling clubs in the rivers also. This decision is absolutely ridiculous. This barriers will prevent spawning and increase ease of predation by creatures such as otters (stupidly released). Fish stocks are under enough threat from predation of cormorants and otters as well as pollution. Let the ecosystem naturally balance. Wherever humans get involved, ecosystems get destroyed
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

29.

Response received from
An Individual (response reference: ANON-BRJC-ADHU-3)
Brief summary of issues raised
Hoveton Great Broad is known as the established spawning site for Bure bream. It is also a day time relief for bream from boat traffic and a nocturnal site for roach as evidenced in your sonar research and broadcsstvas such by your employee REDACTED .
This closure will be ecologically damaging and the benefit of clear water in a private broad is not an appropriate benefit.
REDACTED – Names an Individual
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

30.

Response received from
An Individual (response reference: ANON-BRJC-ADH9-7)
Brief summary of issues raised
I can see no adverse effect
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

31.

Response received from
An Individual (response reference: ANON-BRJC-ADHQ-Y)
Brief summary of issues raised
Installing fish barriers will have a major man-made effect on the migration of fish within the Brue system. Natural England should not carry out this type of work or use the term temporary for something lasting 10 years which may result in negativity change fish migration for ever.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

32.

Response received from
An Individual (response reference: ANON-BRJC-ADHM-U)
Brief summary of issues raised
Evidence collected over the last few years, and published widely, strongly suggest the Hoveton Great Broad and Hudsons Bay are vital to the ecology of the fish species in the whole of the Northern Broads system. Exclusion of the fish species could therefore have a

dramatic impact on these fish populations, and consequently the ecology of the whole system. The evidence that these fish species are responsible for the current ecological status of the broad is very limited and little or no assessment of the large numbers of species of gull that roost on the broad has been carried out. For these reasons I consider the exclusion of fish is not in the best interest of the whole of the northern broads and the likely negative impacts far outweigh the possible benefits of this part of the project.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

33.

Response received from

An Individual (response reference: ANON-BRJC-ADHK-S)

Brief summary of issues raised

I don't believe this is anything to do with flood risk. I don't believe it's temporary.

Big bream shoals breed on the broad and must not be stopped from getting to there breeding grounds. What happens when the bream turn up and can't access? Where do they go whilst already full of egg?

Closing off any broad makes it more like a lake with isolated inhabitants and less diversification.

Fish stocks will fall, there are far too many out of control otters decimating fish stocks so to reduce breeding locations and opportunities will only add to reduce fish

The broads rely on tourist many of which come on holiday to fish.

If there are less or no fish the fishing holiday maker will go elsewhere

Please do not let them barrier off the broad!

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

34.

Response received from

An Individual (response reference: ANON-BRJC-ADHG-N)

Brief summary of issues raised

I do NOT support this proposal as nature always finds its own balance and humans should not be interfering in this matter. The fish have just as much right to live in the broad as the water fleas. Please do not proceed with the proposed fish barriers

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

35.

Response received from

An Individual (response reference: ANON-BRJC-ADHC-H)

Brief summary of issues raised

A great deal of scientific work has been done which has established that Hoveton Great Broad and Hudsons Bay are a prime spawning ground for bream resident in the three northern broadland rivers (Ant, Bure and Thurne). It has been shown that bream travel considerable distances from these river systems to spawn on Hoveton Great Broad. To date no information has been provided that shows that these bream will find new spawning grounds. It therefore seems to be a huge risk to the bream population to prevent their access

to Hoveton Great Broad and Hudsons Bay. There has been no evidence furnished to support any mitigation of this risk. Any suggestions I have heard from natural England have only been supposition and there has been a marked lack of objective data provided to suggest these fish will successfully spawn and reach maturity in alternative spawning grounds. For any credibility I would suggest that this needs to be robustly investigated, before the access to Hoveton Great Broad and Hudsons Bay is denied to these fish. With a lack of this information the installation of the fish barriers would be at best unprofessional and at worst and environmental disaster.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

36.

Response received from

An Individual (response reference: ANON-BRJC-ADHJ-R)

Brief summary of issues raised

Please do not carry out the installation of this fish barrier. As you rightly say the 2 areas of water are home to many Bream and Roach. To push them out into the main river system will see them pushed to a very busy area of the broads lots of river traffic and a good number of otters. I am sure that fish and fleas can live in harmony with each other. This is a ten year project after ten years the fish return hopefully, then ten years later you will be back to square one! What will this achieve? Both areas are unspoilt and lovely leave them alone please. You will do more harm than good.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

37.

Response received from

An Individual (response reference: ANON-BRJC-ADHT-2)

Brief summary of issues raised

please do not remove the fish from the broads.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

38.

Response received from

An Individual (response reference: ANON-BRJC-ADH8-6)

Brief summary of issues raised

As a local who has fished this location for over 30 years
 I see the fish coming of the broad at dusk and return at dawn to take sanctuary from all the river traffic in the day time
 I have watched the bream and pike spawn on this broad for years
 If it is closed off they will have no shelter from the salt as I have watched them taking shelter in the shallows away from the heavier salt water

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

39.

Response received from

An Individual (response reference: ANON-BRJC-ADHR-Z)

Brief summary of issues raised

I would have thought that by removing large quantities of the larger fish you will end up with a small fish explosion as the larger will no longer dominate the pyramid of regular fish stock. What will the emerging mass of smaller fish dine on I wonder, water fleas would be a good starting point. Think very carefully, think what you did years ago introducing the zander as well as your fish management of fenland rivers and drains, not really a good resume.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

40.

Response received from

An Individual (response reference: ANON-BRJC-ADHV-4)

Brief summary of issues raised

The broads are a man made feature of Norfolk which have become a natural habitat for many mammals, birds & fish. Fish of all types use the broads for breeding more than the tidal rivers, this in turn helps supply food for the birds.

Why do human's think they know what's is best for nature & its environment, by removing the fish from the broads & putting a barrier to stop them returning is interfering with nature not helping.

The fish that use this broad will become de-stressed at not being able to return to their breeding ground & will not breed.

What happens when the barrier is removed the tidal water will just flow back in or is the long term plan to actually keep the barrier in place?

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

41.

Response received from

An Individual (response reference: ANON-BRJC-ADH2-Z)

Brief summary of issues raised

I love the Norfolk broads and want them to be preserved and protected for future generations. If this, in the opinion of the experts, is the best way of doing that, then I think you should carry the works out.

Summary of actions taken or show how this has been covered

Please see summary above in Annex 2 on how we have considered these comments in our permit decision on this permit application.

42.

Response received from

An Individual (response reference: ANON-BRJC-ADH1-Y)

Brief summary of issues raised

I believe the restoration of the broad to be truly valuable as a study for the health of the broads system as a whole. The needs of the environment should not be held at a lower priority than that of anglers and sailors.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

43.

Response received from

An Individual (response reference: ANON-BRJC-ADHA-F)

Brief summary of issues raised
I fully support this application which is necessary for the restoration of Hoveton Great Broad. This is an inspirational and ambitious project which will deliver important biodiversity benefits to the Norfolk Broads. The fish barriers are an important tool in allowing the recovery of the Broad and I hope to see this application passed
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

44.

Response received from
An Individual (response reference: ANON-BRJC-ADHS-1)
Brief summary of issues raised
Does the end justify the means? I think not!
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

45.

Response received from
An Individual (response reference: ANON-BRJC-ADHH-P)
Brief summary of issues raised
I am disgusted at potentially cutting off an important breeding ground for native fish, this would never happen for birds, animals etc
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

46.

Response received from
An Individual (response reference: ANON-BRJC-ADUE-Z)
Brief summary of issues raised
If this is what the science recommends, then the temporary barriers should be erected. This area is too precious to risk damaging for future generations. Why employ experts if their advice is disregarded?
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

47.

Response received from
An Individual (response reference: ANON-BRJC-ADUW-J)
Brief summary of issues raised
I object to the proposed work. I believe there are serious flaws in the business case - risks to the environment of the Broad that are not justified by the potential benefits. Specifically; <ul style="list-style-type: none"> - it is not clear that the water is of "poor quality" and needs tampering with the ecosystem to improve - indeed, the water supports plant growth, invertebrates, birdlife and fish. What measures / data have been used to designate "poor quality", and what criteria have been met? I've heard reference to improving the clarity of the water - clear water doesn't mean it's better for wildlife - and often quite the opposite. What's the view of scientists, expert in the ecology of the Broads? - I don't believe there is evidence that the proposed changes will lead to improvement. What measures / data will be used to judge success (or failure) of the scheme? What evidence is there that the proposed intervention will directly drive this improvement?

- I don't believe there is adequate information on the impact of the work on wildlife. For example, we know from recent fish tagging research that bream regularly cover huge distances, on regular "patrol" routes. We also know that the Broad is a bream spawning area. What will happen when the Broad is closed? Where will the bream go to spawn? Will they return to the Broad when it's reopened? What's the impact of any "improved" water quality on the bream? Shoals of bream can be hundreds or thousands of individual fish - significant biomass. They play an essential part in the ecosystem of the Broads and connecting rivers - feeding on invertebrates and plants, providing food for pike, grebe, herons, otters and other predators. If there's a catastrophic breeding season for bream, and/or subsequent, multiple poor breeding seasons - what's the impact on the long term ecosystem of the Broads? Have these risks (not just to bream, but more widely) been individually assessed and quantified? What are the mitigations and contingency plans in place to manage these risks? Is budget available to implement contingency plans if required, as part of the project? In short, I perceive the project to be poorly justified, with uncertain aims and objectives, and potential, long- term negative ecological impacts.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

48.

Response received from

An Individual (response reference: ANON-BRJC-ADUF-1)

Brief summary of issues raised

The broad provides a refuge from the heavy boat traffic in this area for the fish stocks (particularly the large shoals of bream) during the cruising hours. Along with a noted spawning area during the breeding season.

Preventing access to these fish will be devastating to the fish stocks short term and long term.

The idea of clear water in the broad is admirable on some levels but disproportionate with the amount of people who will access and enjoy it when put against the revenue that anglers bring into the local economy year on year.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

49.

Response received from

An Individual (response reference: ANON-BRJC-ADUZ-N)

Brief summary of issues raised

The problems with increasing nutrient levels in bottom sludge in the Broads have been well documented for years - and work done in other places proves that the sludge removal greatly improves the ecology of the sites. I see that the wisdom of the experts consulted must be heeded, and the sludge removal carried out before we add to our problems rather than reduce them. To ignore what has been shown to work elsewhere is foolhardy if not worse.

Summary of actions taken or show how this has been covered

Please see summary above in Annex 2 on how we have considered these comments in our permit decision on this permit application.

50.

Response received from

An Individual (response reference: ANON-BRJC-ADU6-H)

Brief summary of issues raised

I understand that you have a need to control flooding as best you can, but my concern is that where changes like this are made to clean the water and the banks etc, it doesn't work for the fish or the angling.

This clean up method was used on the middle level now to water is nice and clean and clear but the water is full of weed and the fish stocks down, so the angling is now very poor
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

51.

Response received from
An Individual (response reference: ANON-BRJC-ADUU-G)
Brief summary of issues raised
In my opinion. The erection of fish barriers ridiculous. The Broads have been there for hundreds of years, and fish have been there in all this time. Why remove fish from their spawning grounds. Not only is this a poor decision, but the balance of nature will be altered. Bird life will gradually disappear, such as the Heron, Bittern, Kingfisher and Grebes. These all feed on fish.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

52.

Response received from
An Individual (response reference: ANON-BRJC-ADU5-G)
Brief summary of issues raised
I am not a fisherman but it would appear from my research that by inserting these "fish barriers" at the entrances to Hoveton Great Broad, which would be in place for 10 years or more, that one of the major spawning grounds for bream on the Broads would be closed off to these fish. That is unacceptable.
I am well aware that Hoveton Great Broad is a "private" Broad which was illegally closed to navigation around 100 years ago (the wherries used to use the Broad and Hudson's Bay as a short cut on their way to Wroxham with produce). The Broad itself is tidal, with a public right of navigation, but it has been allowed by the owners to deteriorate since its closure with a build-up of sediment leading to a brown, mucky, lifeless state where little survived. There has been extremely controversial funding of a restoration project by the Heritage Lottery Fund with little public benefit from the £4m+ public money being spent and to now close the Broad off for another 10+ years is totally unacceptable. Concerned people will continue to lobby for the re-opening of the Broad and it is one of the Broads Authority's statutory purposes to endeavour to open more waterways to navigation.
So my view is that there are two strong reasons for not installing these fish barriers and I hope that they will be taken into consideration.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

53.

Response received from
An Individual (response reference: ANON-BRJC-ADUN-9)
Brief summary of issues raised
Bream are essentially a bottom feeding fish, thus creating the movement of sediment and putting "colour" into the water. There are no other bottom feeders in the broads in the same large numbers as bream, so yes, bream create colour but if you remove this colour you will be creating the equivalent of an aquarium to feed the ever increasing numbers of cormorants who sight fish. In other words, remove the bream and you will remove all the other species of fish. The end result will be clear/clearer water but no fish!
Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

54.

Response received from
An Individual (response reference: ANON-BRJC-ADUB-W)
Brief summary of issues raised
The bio manipulation of this Broad will be detrimental to very important fish species (Roach, Bream) that are already under increasing stress and pressure The re-introduction of otters and the increasing numbers of cormorants has placed an enormous strain on the fish population, their regular over wintering areas are under increasing disturbance as the fish will enter the important spawning period under stress couple this with reduced spawning area proposed and the resultant clear water which will force fish on to either already occupied spawning areas and into the coloured water of the tidal rivers making them vulnerable to salt incursions. Also the idea of using public funds to improve' what essentially a private broad not in the public interest to say the least.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

55.

Response received from
An Individual (response reference: ANON-BRJC-ADUQ-C)
Brief summary of issues raised
Flood risk activity? -there is not a flood risk. The Land/marshes/broad are all low so will always flood with high tides. Your own flood drawings would indicate this. But I would oppose the installation of the barriers and consider the task a further waste of time, effort and money. 1) By removing the fish what would the otters in the area feed on? Otters were captured from Hoveton Great Broad for the breeding and re-introduction programme 1980's (?) so as to retain the family genes here in Norfolk. Has an impact assessment on otters been made? Already here in my village of Hoveton and those of Horning, Wroxham and Salhouse the success of the otter programme is such that these creatures are visiting private properties, most 500 m and more from nearest water course, and feeding on fish in garden ponds. 2) Scientific studies show HGB is a major location for fish to spawn, particularly for large shoals of bream of the northern Broads and rivers. I did not require the science to advise me of this. I lived in Horning and now in Hoveton and was well aware of this fact as long ago as 1975. The barriers will prevent the bream returning to spawn. 3) Will the barriers be temporary? The bio-manipulation of Cockshoot Broad, just lower down on the river Bure had a barrier built that was also supposed to be temporary. It was installed in 1982 and is still there! 4) History shows that once the fish are removed they will probably recover within three years.(Moss et al. A guide to restoration of nutrient-enriched shallow lakes. 1996). Fish will get round the barriers and over marshes at high tides to repopulate. (I'm advised a similar re-population occurred in Ormesby Broad following fish removal). 5) Why isn't the water on the Broad clear for macrophyte growth? The water in the river is normally extremely clear and this would move in and out of the broad by normal tidal movement. A friend has a residence alongside a dyke in Hoveton (Brimbelow Road) just above HGB. From his property I observe significant annual macrophyte growth in the dyke. Even in height of summer when algae blooms occur the water is reasonably clear. Last year I could count the pebbles and observe everything at the bottom of the water. This water has a significant fish population and which is open to the river and of similar depth to HGB. 6) Why bar the fish? Nutrient enrichment of HGB must be significant from the gulls that roost on the broad at night. Probably as many as 10,000 birds use this site at peak times and their droppings would be deposited in the broad. I see these birds passing over my house towards HGB every evening. Only today I saw one flock estimated in excess of 300 working/feeding

birds behind a tractor in one field near where I live and when finished they were heading for HGB.

7) I had the privilege of access to HGB for fishing several years ago. The owners were proud of the tables/boards installed for the terns to use for breeding/roosting and I was able to observe them. I don't at present know if they are still there but these birds would be somewhat disrupted if fish are removed.

8) Moss refers p. 124 "isolation ...that prevented river water, loaded with sewage effluent, from entering..." Perhaps the Environment Agency should be checking if there is any foul water overflow from Anglian Water sewer systems in Horning and Hoveton that may be contributing to the nutrient enrichment of the river and HGB. FW overflow occurs in the road where I live and in my garden at times of heavy rain - but I am too far from the river for EA to have interest!

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

56.

Response received from

An Individual (response reference: ANON-BRJC-ADUK-6)

Brief summary of issues raised

There are far more pressing issues that need addressing than this. It seems that as ever the easy option is being taken

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

57.

Response received from

An Individual (response reference: ANON-BRJC-ADU3-E)

Brief summary of issues raised

I am against the proposed fish barrier on Hoveton Great Broad due to the impact on fish spawning during the 10 year period.

The loss of this broad for spawning will have a widespread impact on fish numbers as per the analysis provided by BASG. See summary of this data at <https://basgonline.org/hoveton-great-broad-impact-on-northern-broads-bream-stock/>.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

58.

Response received from

An Individual (response reference: ANON-BRJC-ADUJ-5)

Brief summary of issues raised

<https://basgonline.org/hoveton-great-broad-impact-on-northern-broads-bream-stock/>

The above information is why I'm against this action. The broad is a key spawning site for fish and this action will have a detrimental affect to fish stocks for the whole broads system.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

59.

Response received from

An Individual (response reference: ANON-BRJC-ADU2-D)

Brief summary of issues raised
<p>The installation of any barrier anywhere in the Broads, including Hoveton Great Broad, will impact on the natural functioning floodplain. I am particularly concerned what impact will happen elsewhere in the catchment especially during a surge tide event. If water is restricted then elsewhere could suffer from additional flooding.</p> <p>The theory behind this bio manipulation may sound good but what will be the impact on fish movements and in particular those species which currently spawn in the Broad. Restricting or sealing off any water body increases the risk of stagnation.</p> <p>I welcome this review and normally support efforts to improve the Broads but this project does not exactly tick the 'Public Goods' box in any way!</p> <p>The object being to improve water quality in the Broads but, unless, the river water quality also improves, there appears little chance of success if and when the barriers are removed and a free flow of water is re-instated.</p> <p>Given that this project has been somewhat contentious from the start, I would suggest a compromise and only permit the barriers to be in place for a period up to 5 years.</p>
Summary of actions taken or show how this has been covered
<p>Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.</p>

60.

Response received from
An Individual (response reference: ANON-BRJC-ADU1-C)
Brief summary of issues raised
<p>The broad is a major spawning area for Bream in the Bure system. If you deny this species its breeding grounds it will have a massive effect on the ecosystem of the river system! I hope that an assessment of the potential damage to the fish stock has been carried out. I find this project would have been quashed in its early stages if it was going to deny otters or any bird a place to breed. Please let me know your data for the predicted effect on the fish stock of the river bure system.</p>
Summary of actions taken or show how this has been covered
<p>Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.</p>

61.

Response received from
An Individual (response reference: ANON-BRJC-ADUA-V)
Brief summary of issues raised
<p>1) This action is likely to affect the fish population in the adjacent river Bure by disrupting migration, breeding and impeding the flow of nutrients from the broad into the river. This is will affect the rich aquatic food-chain, ultimately impacting the numbers of top predators such as otters, heron, pike and kingfishers in the area, leading to an economic impact on tourism in the area.</p> <p>2) If the plans are to be taken literally, fish barriers are likely to be ineffective because at least two of the connections to the Bure do not appear to have them. Even if all fish in the broad could be killed/removed, fish larvae are readily carried by aquatic birds and are highly likely to recolonise the broad, unless further fish-kills re performed.</p> <p>3) The impact of this action on flooding downstream cannot be quantified and could make a bad situation worse for downstream villages such as Horning.</p>
Summary of actions taken or show how this has been covered
<p>Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.</p>

62.

Response received from

An Individual (response reference: ANON-BRJC-ADUS-E)
Brief summary of issues raised
I have read the project statement from the Environment Agency which I find logical and somewhat exciting to see such a worthwhile project potentially being executed. I would like to add my response in favour of the project.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

63.

Response received from
An Individual (response reference: ANON-BRJC-ADUH-3)
Brief summary of issues raised
I believe it will be detrimental to bream which will not have access for spawning and will in an upset to to ecology of the system
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

64.

Response received from
An Individual (response reference: ANON-BRJC-ADUY-M)
Brief summary of issues raised
Any barrier will prevent fish from getting to their spawning grounds one years loss of spawning will have a knock on effect of many species of fish and the local eco system for years to come
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

65.

Response received from
An Individual (response reference: ANON-BRJC-ADQZ-H)
Brief summary of issues raised
My view is that it could have a detrimental effect on fish spawning thereby affecting the food chain
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

66.

Response received from
An Individual (response reference: ANON-BRJC-ADQ6-D)
Brief summary of issues raised
I want to support the proposed plan for the removal of fish for the stated duration to allow water fleas to control algae and promote the re-establishment of macrophyte communities. As so many of our water bodies have been affected by excessive nutrient inflows we need to take what opportunities we can to restore what we can.
The re-establishment of a diverse and functioning ecosystem should help boost populations of species that have become rarer due to nutrient pollution and also provide a yard stick by which to assess similar eutrophic water bodies.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

67.

Response received from
An Individual (response reference: ANON-BRJC-ADQU-C)
Brief summary of issues raised
<p>It seems to me that these questions would be best answered by Environment Agency employees, or employees of other government agencies, or acknowledged experts in relevant fields. It needs careful consideration of the relevant science and evidence rather than the views of the general public.</p> <p>Hoveton Great Broad is part of an internationally important site that is in poor condition. There is a legal duty on owners, occupiers, and relevant statutory authorities to enhance its conservation value. There is a plan in place that is designed to restore this section of the site to good condition, and it appears accepted by all parties that this won't affect the flood risk. There may be a small, temporary, negative effect on a common species of fish, but evidence suggests that the longer-term effect on the fish community, and on the ecological functioning and health of the site, will be entirely positive. So the improvement in the conservation value of an SAC and long-term benefit to the ecology of the site (including fish) but a small, short-term, negative effect on a common fish species versus maintaining the status quo: a failing site with damaged ecology and poor fish stocks. To me it seems obvious that the barriers should be installed, and to prevent this without any good justification could be illegal.</p>
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

68.

Response received from
An Individual (response reference: BHLF-BRJC-ADQM-4)
Brief summary of issues raised
<p>Key points summarised</p> <p>Responses challenges the assumption that closing off the broad would have a significant impact on bream and therefore on recreational fishing across the whole system.</p> <ol style="list-style-type: none">1. The data (various surveys and studies) indicate that HGB is currently an important spawning location for the majority of bream in the Bure/Ant/Thurne system. This has led to an assumption that this is the only suitable habitat for spawning in the whole system.2. This argument does not take into account the biology of the species. Bream are a generalist species, found in the majority of still and slow-moving waters in lowland Britain and across northern Europe. They thrive in a wide variety of water bodies, including the middle and lower reaches of rivers, lakes, ponds, gravel pits, clay pits, reservoirs, dykes, ditches and canals (both active and disused). These different types of water body vary quite considerably in terms of the habitat they offer and many are very different to HGB, yet bream thrive in all of them.3. This shows that bream are highly adaptive and are not dependent on very specific environmental conditions to spawn successfully. It is therefore highly likely that, if denied access to HGB, bream will be able to find other sites elsewhere within the Bure/Ant/Thurne system to spawn successfully.4. The lack of evidence of bream currently spawning elsewhere in the system is not evidence that no other suitable sites are available. While bream can access HGB, it may well be that they do not choose to spawn anywhere else. Given that they can successfully spawn there, why would they choose to move? Even if better sites were available to them, bream are unlikely to leave a previously successful spawning site in favour of another, as there would be a degree of uncertainty as to how successful the new site will be.

5. An assessment of the potential impact of the fish barriers on bream should also take into account whether the actual impact could be monitored and what mitigation could be taken, should an impact be recorded.
6. The studies to date show that modern methods – particularly the use of acoustic tags - can now be used to very effectively track bream movement across a large system. Allowing the change in the behaviour of the bream – in response to the closure of HGB - to be closely monitored. This could be used to determine which new sites the bream choose to use for spawning and therefore to monitor the potential impacts on the population.
7. If this monitoring were to show that the barriers are causing a problem to bream, a decision could then be made to remove the barriers. The barriers are designed to be removed relatively easily and can be open and closed quite quickly. If, in the unlikely event that the barriers are found to be detrimental to bream, the barriers could be removed or opened to allow bream back into the broad. In other words, the impact of the barriers on the bream is highly reversible.

Summary of actions taken or show how this has been covered

This public response is many pages long and so key points have been summarised above. We have considered all the points raised in the full consultation response.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

69.

Response received from

An Individual (response reference: ANON-BRJC-ADH3-1)

Brief summary of issues raised

This practice could upset spawning and natural predation of certain species

Summary of actions taken or show how this has been covered

Requested that their response is not published on the public register. We have anonymised this representation, as this document will be published on the public register.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

70.

Response received from

An Individual (response reference: ANON-BRJC-ADQF-W)

Brief summary of issues raised

This will be detrimental to the bream spawning grounds on the Bure system and will also impact the pike population which I understand based on the EA tagging project has evidenced the level of decline

Summary of actions taken or show how this has been covered

Requested that their response is not published on the public register. We have anonymised this representation, as this document will be published on the public register.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

71.

Response received from

An Individual (response reference: BHLF-BRJC-ADQB-S)

Brief summary of issues raised
Dear sirs i wish to raise my concerns for the fish on this broad i hope that great thought goes into this as the fish on the broads suffer enough with cormorant population seeming to grow every time i visit the broads whilst realising your wish to create clear water habitat i feel that there could be other ways
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

72.

Response received from
Response on behalf of an organisation (response reference: ANON-BRJC-ADUM-8)
Brief summary of issues raised
It is the general opinion of the members of the NDAA that even though we are aware of the effect on fish stocks if the restriction of fish movements in and out of the HGB in the future 5/10 years for spawning WILL have a noticeable down turn of primarily Bream numbers in the whole of the Broads system, and this will lead to a reduction in the numbers of holiday makers visiting the area for its superb fishing , careful consideration should be given to the impact on the general area as regard water levels during high tides. The installation of barriers to stop fish moving in and out of HGB will also restrict water flow. We believe we are correct in saying that, on tidal waters, any stretch of water connected to the tidal rivers that allow a movement of water in and out cannot not be blocked to prevent this. If this is the case the barriers will have to allow water to continue to enter and leave to Broad. What type of barrier will be used????????? Should the flow be restricted the extra water left in the Rivers will cause considerable damage to the surrounding area with flooding. We already had this problem recently when, due to excessive rain, climate change? The levels of water overtopped the river banks resulting in flooding in the Wroxham area. We are also aware that river levels have increased by probably 3 inches over the last 10 years, causing work to be required through the Flood Elevation scheme. No doubt this was given consideration when the reinstatement of HGB was decided. We hope you will take into account our concerns for the future Tony Gibbons on behalf of the NDAA
Summary of actions taken or show how this has been covered
<u>Requested that their response is not published on the public register. We have anonymised this representation, as this document will be published on the public register.</u>
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

73.

Response received from
Response on behalf of an organisation (RSPB) (response reference: ANON-BRJC-AD6F-2)
Brief summary of issues raised
Wholly supportive of the practical approach to excluding target coarse fish species by erection of tidal barriers as means of supporting the restoration of Hoveton Great Broad. RSPB have visited the site and see no adverse impact arising from the proposed solution, indeed by removing fish from the broad post-dredging and biomanipulation will offer opportunities for fish populations to reset. There are abundant locations for those fish removed from the broad to survive and thrive in adjacent river and broad systems. The proposed method is both simple, least invasive and most cost efficient allowing the fish to exit the broad on a dropping tide and then be excluded from the broad using the barriers.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

74.

Response received from
Response on behalf of an organisation (Welney angling club) (response reference: ANON-BRJC-ADHD-J)
Brief summary of issues raised
Hoveton broad is a major breeding area for the bream and other species in this area of both the broads in general and specifically the main river. To isolate this area and prevent access for these fish would have a massive effect on the broads eco system for all fish stocks. It is possible to desilt these areas without resorting to such extreme measures. This has been discussed in detail by both LOFFCA and by the Angling Trust neither of which support this suggestion in any form.
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

75.

Response received from
Response on behalf of an organisation (norwich and district pike club) (response reference: ANON-BRJC-ADU9-M)
Brief summary of issues raised
the fish barrier will be detrimental to a very important spawning site for bream on the bure and over river systems as proved by tagging trial and should not be aloud to go ahead
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

76.

Response received from
Response on behalf of an organisation (Norfolk and district pike club) (response reference: ANON-BRJC-ADQW-E)
Brief summary of issues raised
Hoveton Great broad fish barriers. Regarding the proposed Biomanipulation this is potentially damaging to the fish stock's I.E. the stocks of bream the food for pike on the entire northern section of the broad. As an E.A. fishing licence holder I feel that once again science is interfering with the environment natural resources when there is no need fish barriers are a pointless exercise to restrict the fish stocks of this broad and Ormesby broad thus making said Broads less populated in the name of science for no Other reason than financial and reasons as per normal fishermen are the last to know they are not needed as Ormesby broad there barriers are permanent are these for flood protection and if so explain
Summary of actions taken or show how this has been covered
Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

77.

Response received from
Response on behalf of an organisation (Pike anglers club) (response reference: ANON-BRJC-ADQ5-C)
Brief summary of issues raised
It seems disingenuous to ask the general public their opinion on a project that your own research has shown to have serious risks involved that are of great concern. At the last public meeting that debated this project which I attended, the EA stated that they had serious

concerns and that the project should not continue. I would suggest that rather than listening to well meaning members of the public, you listen to your own experts they are surely employed for their knowledge and expertise in this field. It is they who have spent many years looking at the data, arriving at a conclusion based on that detailed and time consuming research. If any research has taken place to change the EA fisheries team's opinions, then it should be shared with the same public that you are asking to give their opinion. It is madness to entertain any thoughts of the project continuing if it goes directly against scientific fact and research, based only on hope and speculation, The credibility of the EA will be totally worthless, and respect for them will soon evaporate if ,after vast amounts of money have been spent on research ,that evidence and detailed scientific data is then totally ignored.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

78.

Response received from

Response on behalf of an organisation (National Trust) (response reference: ANON-BRJC-ADQN-5)

Brief summary of issues raised

We support the proposed barrier installation on the basis that this is temporary and is likely to lead to significant ecological improvements in part of the Broads SAC. Whilst Hoveton Great Broad is only a small part of the Broads system the temporary exclusion of fish will help restore ecological function in these lakes with benefits for habitat, aquatic plants and fish communities and with potential for these effects to cascade into the wider system. The fish community of the 'restored' system is likely to be more diverse and support species currently poorly represented in the system.

The temporary reduction in fish populations within lakes ('biomanipulation') is a valuable lake restoration tool when combined with catchment wide and lake level nutrient reductions. The proposed work at Hoveton Great Broads is one of the few lake-scale biomanipulations carried out in the UK and will present an important learning opportunity. The outcomes of this work will be of wider value to the lake management community in the UK and beyond and help demonstrate how such actions can deliver a range of public benefits.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

79.

Response received from

Response on behalf of an organisation (Broads Authority) (response reference: BHLF-BRJC-ADQ9-G)

Brief summary of issues raised

The Broads is one of Britain's largest wetlands, providing space for wildlife and supporting a significant tourism economy. Angling and fisheries play a key role in supporting the rural economy in the Broads.

Given the importance for wildlife, economy and recreation, the development of projects in the Broads is usually the result of partnership work with shared understanding and common objectives. The Broads Authority welcomes this consultation to collect the representations from different interests. The Broads Authority supports balanced multi-benefit projects supporting both biodiversity restoration and the fishery/angling sector.

The Broads Authority have no further information to add to the submitted Flood Risk Assessment which concludes that the development would not increase the risk of river flooding.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

80.

Response received from
Response on behalf of an organisation (response reference: BHLF-BRJC-ADQD-U)
Brief summary of issues raised
<u>Key points summarised</u>
<p>The response refers in particular to the following documents that have been provided before the permit application was submitted:</p> <ul style="list-style-type: none">(a) Hoveton Project: creating a sustainable future for the Bure system(b) Fisheries Improvement Plan(c) Hoveton Great Broad and Hudson's Bay biomanipulation – Macrophyte recovery and requirement for a diverse stable macrophyte community(d) The effect of eutrophication on fish assemblage and the role of fish in reinforcing the turbid algal dominated state.(e) Comments on EA Fisheries responses to Meeting of Area Directors. <ol style="list-style-type: none">1. The need for restoration has long been recognised, both through targets for SSSI, SAC and SPA/Ramsar objectives and latterly to achieve WFD objectives.2. Several attempts have been made to restore such waterbodies, through sediment removal, isolation and biomanipulation, both here and elsewhere in Europe. Where success has been poor, it is generally due to external factors (such as nutrient inputs) which have not been fully addressed. By 2011/12 the phosphate levels in the River Bure (which links to HGB/Hudsons) had reduced to the extent that a major restoration project was viable.3. Phosphate levels are now such that the system can exist as either algal-dominated turbid water (its present state) or macrophyte-dominated clear water. In order to shift from one to the other a "kick" is needed, and many studies (including several in the Broads) have shown that biomanipulation by fish removal is the most effective way to do this.4. biomanipulation is achieved by removal of small fish removes the grazing pressure on zooplankton and removal of large benthic-feeding fish, particularly bream, prevents the constant disturbance of the remaining sediment, which is still rich in phosphates.5. It is important to remember that not all the fish will be removed, even if this were possible, which it almost certainly is not - pike, for example, will certainly be retained. A figure of 70 - 80 % is often quoted in the literature as one to aim for, and one of the results of monitoring should be to get a good assessment of what needs to be removed for effective biomanipulation.6. Public enjoyment and reconnection with nature will both be enhanced – the Project aims to get more visitors on site (up from the present c 7,000 pa) and will be able to use technology such as underwater cameras to show the underwater communities, as well as the greater diversity of species such as dragonflies and waterfowl. Website and social media are also in use and will spread news of the outcomes.7. While bream have been observed spawning in HGB, I have seen no evidence that proves that they do not or cannot spawn in other areas. Bream are one of the commonest fish in the UK and western Europe, renowned for their ability to spawn in poor-quality waters.8. It is unlikely, to say the least, that excluding them from HGB/Hudsons would result in no spawning and their inability to find other quiet areas to spend time in (for example in the middle Bure Hoveton Little Broad in winter months, Pound End, Salhouse Little Broad, Decoy Broad and Ranworth Broad are all boat-free).9. There are other refuge areas for fish in the event of a salt incursion.
Summary of actions taken or show how this has been covered

Requested that their response is not published on the public register. We have anonymised this representation, as this document will be published on the public register.

This public response is many pages long and so key points have been summarised above. We have considered all the points raised in the full consultation response.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

81.

Response received from

Response on behalf of an organisation (response reference: BHLF-BRJC-ADQQ-8)

Brief summary of issues raised

Key points summarised

The response refers in particular to the following documents that have been provided before the permit application was submitted:

- (a) Hoveton Project: creating a sustainable future for the Bure system
- (b) Fisheries Improvement Plan
- (c) Hoveton Great Broad and Hudson's Bay biomanipulation – Macrophyte recovery and requirement for a diverse stable macrophyte community
- (d) The effect of eutrophication on fish assemblage and the role of fish in reinforcing the turbid algal dominated state.
- (e) Comments on EA Fisheries responses to Meeting of Area Directors.

1. Hoveton Great Broad and Hudson's Bay have many protected designations. They are a single WFD lake water body and a Protected Area under the WFD. These sites are in Unfavourable Condition – no change for the Habitats Directive, and Poor ecological status under the WFD. The current HLF & EU LIFE funded project is applying well-established lake restoration techniques to these broads, including sediment dredging and biomanipulation of the fish population.
2. Isolation of the broads for biomanipulation would remove a spawning site for bream from the wider broads system, the impact of this on the bream population for the duration of the project is not known, although compensatory habitat mitigation measures have been proposed (Ref Fisheries Improvement Plan).
3. Bream are currently an important component for the wider Broads fishery, and there is concern about potential economic impact locally if angling interests were adversely affected. However the dominance of bream (and roach) in the fish population is indicative of a disturbed ecosystem and is in conflict with the WFD definition of good status and the conservation objectives.
4. Exclusion of the fish from these broads is intended as a temporary measure to kick-start an improvement in other biological elements such as macrophytes. While this could have a short-medium term impact on the fish population, the scale and extent of the impact is uncertain – the fish may fail to spawn, or they may move and spawn elsewhere in the system. Although it should be noted that we have no data on the spawning success of bream in HGB and HB.

It is expected that a restored Broads' ecosystem would support a different, more diverse fish population in future, leading to a different angling experience.

5. In England there are approx. 20351 ha of H3150. We know about the condition of approx. 7261ha (41%) and only about 382 ha are in good condition. That is only 5% of the habitat we know about.

There are only 3 SACs for this habitat in England, this is where we should do our best for this habitat. Calculations suggest we have approx. 573.5 ha of lake habitat in the Broads SAC. And the lakes database suggests Hoveton Great Broad including Hudson's Bay is 36.88 ha which is less than 6.5% of it.

Looking at the Broads SAC out of approx. 573.5 ha of lake only 41.1 ha is favourable 7.2 %. If we restore Hoveton that would take us up to 13.6%

6. The primary regulatory driver is the Habitat Regulations (Favourable Condition) with a WFD Protected Area objective of achieving the higher bar set by the Habitat Regulations.
7. The dominance of bream (and roach) in the fish population is a symptom of eutrophication, a natural fish assemblage in the broads would be more diverse with fewer bream and roach. Such an unimpacted fish assemblage is reflected in the WFD definition of good ecological status and the conservation objectives –Currently the fish assemblage is degraded and fails its statutory objectives.
8. 'There has also been a question raised over whether a project that is designed to create WFD and HD improvements should continue if there is a chance of causing deterioration in the fish element of the broad and the wider connected water bodies' –The current fish assemblage is indicative of a degraded habitat and currently a barrier to the restoration of high quality habitat and a fish community representative of such. A change to the current fish population does not necessarily (and is unlikely to) represent a deterioration when assessed against reference conditions and a naturally functioning ecological system (the true test of WFD and Habs Regs).
9. 'Both NE and EA have a statutory duty to restore the sites to Favourable Condition, but the EA also have a duty to maintain, improve and develop fisheries' – this does not include maintaining and developing fisheries which are incompatible with their surrounding reference freshwater habitat. Taken a step further 'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' , NERC Act 2006.
10. Finally, there is evidence from the bream tracking study that there is a significant risk of change (rather than detrimental impact) in the current fishery, but this change is accepted as it is not an impact but a restructuring, leading to a better (more balanced, sustainable, resilient etc.) fishery overall. However, the scale, range and timing of this change is more difficult to determine. Taken a step further, as the wider fishery is effectively adapting to the changed habitat, the angling opportunity then adapts to the changed fishery (methods, gear, target species, expectations).

Summary of actions taken or show how this has been covered

Requested that their response is not published on the public register. We have anonymised this representation, as this document will be published on the public register.

This public response is many pages long and so key points have been summarised above. We have considered all the points raised in the full consultation response.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

82.

Response received from

Response on behalf of an organisation (Broads Angling Services Group BASG) (response reference: BHLF-BRJC-ADQV-D)

Brief summary of issues raised

Key points summarised

1. Reference is made to a WFD assessment produced in 2014. This was before any fisheries baseline information was available and before surveys had been undertaken. It's based on historic 10 year old data, taken from the 1st cycle of WFD reported in the river basin plan in 2009. As such, this assessment cannot be considered appropriate or representative as the last 3 years of assessment of bream behaviours across the Northern Broads.
2. The WFD assessment states that there will be no negative impact by the installation of fish barriers, clearly the sole purpose of a fish barrier is to have an impact on fish. No evidence is proved to explain how this impact has been deemed as having no negative impact or why no mitigation is required.
3. We strongly believe that the impact will be negative and therefore the methodology needs to be changed to remove the fish barriers or to provide a robust and monitored mitigation solution.
4. So we ask that all the current assessments for fish be taken into account for the current assessment on WFD and the evidence this has proved beyond doubt that the current proposals will critically damage the Northern Broads Bream Stock to an unrecoverable state and as such all previous ecological assessment stating no impact are now not valid.
5. The fact that the evidence conclusively proves this impact is our key objection. We believe that recovery of Hoveton can be achieved without this complete enforced isolation.
6. Our impact analysis supported by clear science and reviewed by the IFM and EA Fisheries Scientists, shows critical damage to the Northern Broads Bream Stock, which covers at least 10 other WFD waterbodies, for the benefit of one single waterbody on failing macrophytes. This impact will not only damage fish, but the whole ecology and food chain they support, so famous in the Broads.
7. Is it right to alter the Broads to a fishery of such mixed species as intended when in the history of the broads shows that they are restoring it to something that it never was.
8. The river levels will overtop the fish barriers on a regular basis and so fish will gain access to HGB. This main a large commitment to remove fish after each flood event.
9. A Fish Stock Modelling and Assessment has been undertaken by the respondent. This modelling takes a range of variables to Bream successfully spawning and projects the spawning success rate in the Northern Broads system excluding HGB. This show a significant reduction in spawning success and so overall population over time.
10. They believe that if sufficient mitigation measures are put in place that bream stocks will only reduce by 20% over 10 to 15 years and want to discuss how this mitigation can be achieved.

Summary of actions taken or show how this has been covered

This public response is many pages long and so key points have been summarised above. We have considered all the points raised in the full consultation response.

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

83.

Response received from

An Individual (response reference: BHLF-BRJC-ADQK-2)

Brief summary of issues raised

Outrageous that £4.7m of public money spent for no public benefit. The broad was illegally closed in the first place. Ecological disaster about to happen. Shame. No one benefits least of all fish and wildlife. The broad will just become a marsh.

Summary of actions taken or show how this has been covered

Please see comments above in Annex 1 and Annex 2 on how we have considered these comments in our permit decision on this permit application.

Annex 3: Documentation used in determination process

All the documents submitted through the application process, including supporting evidence documents are listed below. Where appropriate the documents listed below have been referred to in the annexes above.

All of these documents are available on the public register for the Flood Risk Activity Permits (FRAPs) under the permit reference (EPR/NB3494JP) and can be requested by the public.

Annex 3 – Table 1

Document Number	Reference	Date	Description
1	Application form (Part A, B10 & F3).	25/11/2019	Application forms
2	Biomanipulation Barriers	5/11/2018	Structures location map
3	02595 - 001_P03	13/11/2019	Design drawing showing the schematic plan of proposed fish barrier structure at 'Hoveton Marshes' location
4	02595 - 002_P03	13/11/2019	Design drawing showing the schematic plan of proposed fish barrier structure at 'The Dam' location
5	02595 - 003_P03	13/11/2019	Design drawing showing the schematic plan of proposed fish barrier structure at 'Foxborrow Dyke' location
6	Environmental Statement Volume I: Environmental Statement	07/07/2014	Environmental Statement - Volume I
7	Environmental Statement Volume III: Appendices	07/07/2014	Environmental Statement - Volume III Appendices
8	Environmental Statement Volume IV: Non-Technical Summary	07/07/2014	Environmental Statement - Volume IV
9	Hoveton Great Broad Restoration, Modelling Report – Revision 1.0	April 2019	Hydraulic modelling report
10	Hoveton Broad model files & Hoveton Responses	14/01/2020 at 14:48 & 18/03/2020 at 16:19	Hydraulic model files provided within emails
11	Hoveton Wetlands Restoration WFD compliance Assessment	June 2014	WFD Assessment
12	Addendum to Hoveton Wetlands Restoration Project Water Framework Assessment	January 2020	WFD Assessment Addendum
13	Updated Hoveton Wetlands Restoration WFD compliance Assessment	March 2020	Updated WFD Assessment

14	Hoveton Great Broad Restoration Project – alternative options considered	13/03/2020	Natural England Response to Schedule 5 Notice Request for more information on Alternative options
15	responses to consultations	04/12/2019 at 18:19	Natural England project consultation appendix with the Environment Agency in email
16	Annex1 – Fisheries Improvement Programme	07/02/2020	Fisheries Improvement Programme
17	Hoveton Project: creating a sustainable future for the Bure system (002)	25/11/2020	Natural England's evidence on Hoveton Great Broad fishery
18	Annex 1 - Fish assemblages in the Broads (002)	25/11/2020	Annex 1 of Natural England's evidence on Hoveton Great Broad fishery
19	Annex 3 – Macrophyte recovery in HGB post biomanipulation (002)	25/11/2020	Annex 3 of Natural England's evidence on Hoveton Great Broad fishery
20	Stage Habitats Regulations Assessment form	28/01/2020	Environment Agency internal assessment of SPA, SAC and Ramsar sites through the Stage 1 HRA
21	SSSI Assessment Formal Notice of permissions (Appendix 4)	28/01/2020	Environment Agency internal assessment of SSSI site through the Countryside & Rights of Wat Act – Appendix 4 assessment
22	01533 Hoveton Great Broad Fish Barrier Outline Construction Methodology	25/11/2019	Outline Construction Methodology
23	01533 Hoveton Fish Barrier Method statement Risk assessment	25/11/2019	Method statement Risk assessment
24	WQRST Screening Report	10/07/2020	Bespoke permit screening tool assessment