

**A1.2 Beccles Marshes, Castle Marshes and Share & Carlton Marshes (Compartments 26, 27 & 28) Pre-application Consultation Responses**

CONSULTEE	COMMENT	RESPONSE
<b>Broads Authority</b>		
<i>General</i>	<p>We are concerned about the overall impact of the extensive crest piling proposed for compartments 26 &amp; 27, in terms of the impact on landscape, recreational enjoyment, wildlife and maintenance basis. If as suggested, all strengthened sections require crest piling this will result in only 6% of these compartments without crest piling. We would like clarification on the exact extent of crest piling proposed and detailed cross section drawings to be made available for further comment. The Broads Authority would object to such extensive crest piling.</p> <p>Over time crest piling will need to be raised as the banks settle further. The Broads Authority question if this is a sustainable solution as a flood defence strategy. We are concerned about creating an extensive barrier to wildlife along the river corridor. We suggest that alternative solutions are pursued and the environmental, landscape and practical impacts considered.</p>	<p>Crest piling was identified as the most appropriate solution due to</p> <ul style="list-style-type: none"> <li>• Poor material for constructing ‘full height’ earth banks</li> <li>• Additional material on top of the bank will disturb the existing over-consolidated state of the clay material and further accelerate settlement. The crest piling will settle at a lower rate than the newly raised bank. The worst case scenario expected is the settlement of the bank independent of the crest piles. In this case the piles will be designed to take account of the loss in passive resistance.</li> <li>• Strengthening and raising the crest of the banks would involve backfilling all the existing soke dykes due to the increased footprint of the rear slope. This, combined with the additional material requirement, would create large soke dykes and have a far greater impact on grazing marsh habitat.</li> <li>• We believe the issue of piles acting as a barrier to wildlife can be overcome by a combination of design and vegetation management</li> </ul> <p>Apart from the replacement of steel piling in compartment 28 we are considering the use of plastic piling due to its durability, low maintenance requirement, ease of installation and the fact that it utilises recycled material. Any capping would be of timber.</p>
	<p>We hope that by considering the compartments within the Waveney Valley in consecutive years the opportunity to deliver long-term sustainable solutions to manage flood risk in this river valley would be reported upon. However there is no mention of the whole river valley or even links between the works in the compartments of the River Waveney.</p> <p>At the least the solutions for compartment 26-28 need consideration in tandem with compartments 23 in which Short Dam Level has been considered as a potential river corridor washland by the wetland BAP group.</p>	<p>The in-combination effect of the proposals for Compartments 26 to 28 on water levels/velocities within the River Waveney as a whole has been undertaken including an assessment of the flood defence benefit of Compartment 23 as a managed washland. In addition, BESL have T2 strategy solutions for the whole of the River Waveney. An assessment of the linkages between the proposed works will be included within the Environmental Statements produced for each proposal.</p>
	<p>We cannot comment of the Phase 2 works on Peto’s Marsh at this stage. However we would welcome the acknowledgement of its potential long-term role for flood alleviation and look forward to working with relevant organisation to deliver a sustainable solution for this area.</p>	<p>BESL are aware of its potential for habitat creation through the use of Peto’s Marsh as a washland, though its possible benefit in managing water levels within the Waveney valley is uncertain with initial modelling works showing minimal benefit in reducing levels significantly.</p>
	<p>Extensive erosion protection will be installed in compartments 26 and 27 (c. 30% of riverbank). We are of the understanding that the overall strategy aims to minimise the need for such works as these being required; thus this proposal appears to be in conflict with the standard defence prescriptions.</p>	<p>This proposal has been chosen, as setback is not feasible due to poor quality material and ground conditions. Additionally, the erosion rates in this part of the valley (and for the majority of the compartment lengths, which are either on straight runs or inside bends) are relatively low.</p>
<i>Archaeology and cultural heritage</i>	<p>A Table 1 (see table 10.1, The Broads Authority’s initial list of historic structures in compartment 26 is enclosed summarising our initial consideration of the structures located in the compartments 26-28, excluding Peto’s Marsh area, which will be considered in phase 2. The Broads Authority looks forward to the development of the method statement, which will assist in the consideration of works around these historic structures.</p>	<p>A draft Method Statement has been produced in consultation with the Broads Authority that will be trialled across all active construction sites within the Project area. For structures located within the works corridor that are at risk from the proposed works, condition assessments will be undertaken before construction and appropriate monitoring during the works to identify any changes in condition.</p>
<i>Ecology and nature conservation</i>	<p>The timings of works need to ensure that there is no impact of the SPA features.</p>	<p>The main earthworks season is between April and September and this avoids the over wintering period for most SPA species. Vegetation clearance of the works corridor outside the main bird breeding season of the floodbank, folding and soke dyke will remove any potential nesting habitat for SPA and other bird species. If nests are present then appropriate exclusion zones will be established until they fledge.</p>
	<p>The existing river corridor provides good habitat for a wide range of wildlife including barn owls, kingfishers, Cettis warbler, reptiles and amphibians. We would like to view detailed site plans of compensatory habitat creation.</p>	<p>Measures to protect these species/groups during construction and provision of habitat on completion will be included in the planning applications.</p>
	<p>We are aware that some of the largest populations of bankside and aquatic invasive species plant are within this river corridor. We would like to view BESL’s and EA site plans to eradicate these nuisance species.</p>	<p>BESL surveys have not found any invasive plant species including Japanese knotweed, giant hogweed or floating pennywort within the works corridor of Compartments 26, 27 or 28. Populations of Japanese knotweed and floating pennywort have been noted within Gillingham Marshes (Compartment 25). BESL have already contributed to the eradication of floating pennywort within the Gillingham Marshes. Areas of Japanese knotweed will be addressed during any subsequent flood defence works for Compartment 25.</p>

	Most of the soke dykes are of high conservation value for Water Voles, possibly Otters, aquatic invertebrates and plants. Operational sensitivity will be essential in these areas.	Comments noted. However, very few signs of water vole activity have been recorded from Compartment 26 to 28 during baseline surveys. Otter are actively using these compartments with spraints found within or adjacent to all three compartments. With respect to aquatic invertebrates of high conservation values, especially Scarce Chaser and possibly Norfolk Hawker, BESL will be undertaking surveys in spring 2005 to determine the extent of any populations present and to help identify any mitigation required. Vegetation surveys of soke dykes and marsh dykes were undertaken in 2003.
	We would appreciate further discussions and close working to find solutions to the future management of the area of dredgings on Whitecast Marshes.	We have inspected this material and unfortunately it is not suitable for floodbank construction. However, it could be used for in-fill within setback areas in the Waveney valley if the Broads Authority are prepared to transport it. Alternatively, there may be an option of in-filling the adjoining channels and re-profiling the whole area.
	We would like to view the hydrological modelling and its impact of undefended areas.	A hydraulic modelling run of the proposals for Compartments 26, 27 and 28 alone and in-combination with proposals for the remainder of the Waveney valley has shown insignificant impacts on the undefended properties of St. Olaves. The results of the modelling runs will be included within the Environmental Statement produced for submission with the planning applications for these compartments.
<i>Landscape and visual quality</i>	The loss of tree and scrub is recognised as necessary to maintain the defences in a good and maintainable state. We applaud the processes of consultation and consideration of stakeholders needs in the tree removal operation. The BA recognise that many people valued the wooded river corridor landscape and we welcome further work with BESL and the EA to look strategically at replanting and additional removal for navigation purposes.	Comments noted and welcomed. BESL are happy to identify potential areas for replanting within the grazing marshes with the Broads Authority and landowners. The removal of trees along the navigation corridor would need to be undertaken by the Broads Authority through consultation with the landowners, BESL and the Environment Agency.
	The tree removal required for these works obviously does not form part of this consultation as it is permitted development and anticipated that it will have been completed prior to the planning application being submitted. However we feel that despite making reference to the work we consider that the opportunity to explain in greater detail the process that has been gone through and the parties that have been involved, should have been taken.	An information note summarising the tree clearance works and the consultation process was circulated widely and displayed at appropriate locations within Compartments 26, 27 and 28. In addition, an article was included within the regional press. Only one complaint has been received.
<i>Recreation and Navigation</i>	Need for more sustainable solutions for disposal of dredged material to be designed into this scheme at an early stage. The work should link to the BA Sediment Management Strategy.	The only opportunity for dredging disposal will be the setback area downstream of Beccles bridge (compartment 26)
	It is noted that the works comprise a mixture of strengthening and strengthening/installing erosion protection. It will be essential to ensure that all footpath reinstatement should be to a similar specification, and should be of high quality given the high recreational value of the riverwall to walkers.	The completed works will provide a crest width of 2m wide that will be flat and level and constructed from clay with a layer of topsoil seeded with an appropriate grass seed mix. In addition the tree and scrub clearance will also help provide an improved walking area with reduced hazards and a better surface due to more light.
	We consider that there is opportunity to identify, prioritise and deliver improved access for angling and recreation on foot, in certain non-sensitive areas. Also to minimise the erosion caused to the flood banks by anglers gaining access to the river. We welcome any opportunity to work with the EA and BESL to deliver these improvements.	Comments noted and welcomed. BESL and the Broads Authority have been working closely with existing angling clubs, notably the North Cove Angling Club (Compartment 27) and the Carlton Colville Angling Club (Compartment 28) to identify opportunities for minimise disruption to the clubs during the construction period and to where possible enhance existing access for angling. In addition there is the opportunity for a footpath enhancement on the floodbank close to Whitecast Marshes (compartment 28).
	We would like to see the results of the erosion protection trials that were done along the banks of the Waveney guide the forms of erosion protection that will be used. In terms of navigation safety we are concerned about the marking and setting of the final levels of the erosion protection relative to MHWL.	The erosion protection to be used will be soft, and therefore there is no risk to rivercraft.
	The Broads Authority is keen to see the 24hr moorings adjacent to Beccles Bridge re-piled, as it forms part of the defences and is currently in a poor state. We would welcome further discussions on this aspect of the works. We are also currently in negotiation with the landowner at North Cove Staithe to develop a new mooring site and would be keen to see the necessary works incorporated into the scheme as a partnership project.	The piling at Beccles bridge will not form part of the flood defences once the floodbank is setback so there are no proposals to re-pile here. The construction of the strengthened floodbank at North Cove will take account of the need to accommodate any new length of mooring at this location.
<i>Water environment</i>	Early discussion the hydraulic modelling information to inform us of any upstream effects on Geldeston Marshes would be welcomed.	The hydraulic model has been used to assess impacts on water levels/velocities within the River Waveney adjacent the designated sites, most notably Geldeston Marshes SSSI and Stanley and Alder Carrs SSSI (both components of the Broads cSAC and Broadland SPA and Ramsar sites). The results show that the proposals for Compartments 26, 27 and 28 will not have a significant effect on water levels adjacent to the designated sites. A detailed assessment of impacts on levels (both fluvial and tidal) will be included within the Environmental Statement for each of these compartments.

<b>British Dragonfly Society</b>		
<i>Ecology and nature conservation</i>	Compartment 26 - Two dragonfly species of conservation concern have been recorded from the River Waveney in this area, including from sites close to the proposed setback. The species concerned are Norfolk Hawker, Aeshna isosceles, protected by the Wildlife & Countryside Act 1981, and Scarce Chaser, Libellula fulva, a Nationally scarce species. Potential disturbance and destruction of habitat should be taken into account when the work is carried out in this area.	With respect to Scarce Chaser and Norfolk Hawker, BESL will be undertaking surveys of soke dykes in Compartments 26, 27 and 28 in spring 2005 to determine the extent of any populations present and to help inform any mitigation required.
	Compartment 27 - We see no particular problems in this area.	Comments noted – see comments above regarding dragonfly surveys.
	Compartment 28 - Our database shows no significant dragonfly records for this compartment, but the area is potentially a good one for dragonflies. We suggest that a survey should be carried out in June 2005 to search for species, particularly Norfolk Hawker & Scarce Chaser. This survey, concentrating on Peto's Marsh area where setback is proposed, should be completed before any of the phase 2 work is carried out.	Norfolk Hawker is recorded from the Norfolk Wildlife Trust reserve at Carlton Marshes but not within any of the dykes that will be affected by the works. We have not been able to survey Peto's Marsh as yet but believe the dykes are unlikely to be suitable for Norfolk Hawker & Scarce Chaser because the whole area is arable. However, BESL are proposing to undertake invertebrate surveys of the affected cSAC dykes during 2005 prior to any works starting on site in 2006.
<b>Beccles Town Council (questions asked at a presentation)</b>		
<i>Recreation and Navigation</i>	What about footpath closures and temporary marsh trails?	There will be temporary footpath closures during the works. Additional temporary crossings will be established on the grazing marsh during the works and appropriate signage provided.
	What are the proposed solutions along the bank outside the sailing club? Will the footpath be affected?	The floodbank between Beccles bridge and the sailing club will be setback. The footpath won't be altered and 50m of replacement sheet piling is proposed in front of the sailing club.
<i>Water Environment</i>	Will the proposed works result in water being pushed upstream and affecting other areas?	A hydraulic model has been used to predict effects. The works will not result in problems elsewhere. BESL are working to 1995 levels.
<b>Ben Blower</b>		
<i>General</i>	The water edge in compartment 27 comprises of a number of interesting inlets and a varied line. The proposals appear to be going to result in a clinical straight edge - very uninteresting.	The detailed design will take account of the need to avoid long, straight edges.
	Access to the river wall post completion of the works needs considering to deal with any future breach so that a digger can reach the problem area wherever it may be.	Comment noted.
	There is insufficient information in the document to be clear about what is proposed. Meeting with Jeremy Halls indicates there will be considerable land take to create new wider soke dyke. As landowner in compartment 27 I wish to be satisfied that the full extent of the land take proposed is unavoidable in engineering terms. Much more detail in this respect is necessary, as you still appear to have to settled proposals.	Since this comment was made BESL have revised the design to incorporate crest piling due to problems with material quality. This means that the land take is much reduced. Mr Blower is satisfied with the revised design.
	Piling by the Lilywater landspring to be renewed? Note the connecting pipe under the landspring to be preserved. What is happening to the redundant sluice?	The soke dyke next to the Landspring is to be re-aligned so the section with the piling will not be required as it will be back-filled. The connecting pipe will also have to be re-aligned. The redundant sluice will remain in place.
<i>Recreation and Navigation</i>	Fishing - the proposals will not improve fishing for the North Cove & Barnby Club. Quite possibly it will ruin the fishing on this stretch. Access to the water through any reeds needs to be preserved as discussed.	BESL and the Broads Authority have met Mr Blower and Richard Bird (Secretary of the fishing club) to discuss the scheme proposals and opportunities for angling enhancements
	Timing needs to be clarified - the Fishing club will have to close for the period of the works. Maximum advance notice is needed.	Comment noted. BESL will keep the fishing club and landowner informed of the programme.
<b>Broads Society</b>		
<i>General</i>	On timing, we think that the currently undefended areas, and in particular Brundall, Beccles and Gillingham, should be attended to before the compartment subject to this consultation. We are very concerned at the Environment Agency's continued inability or unwillingness to issue instructions to BESL to this end.	There has been a general rethink about undefended properties. Our works have not affected general water levels in the whole of the Broads, which was one of the reasons why they were included. Also the provision of defences which give 'betterment to individual properties' has been deemed unacceptable. Where combined flood schemes (such as Reedham) are not suitable, raising of individual floodprone properties in Beccles or Gillingham have been identified as 'undefended properties' under the FDSA contract.
<i>Access</i>	Land access to the waterways subject to this consultation is generally poor, with tracks that will not stand up to much traffic, particularly in wet weather. The roadways concerned will therefore have to be strengthened with hard core, or else re-instated afterwards to the condition they are in at present. Wade Hall Old Dam is in a particularly fragile state. All materials required for bank strengthening and erosion protection works should as far as possible be brought to the site by water, rather than by road.	Comments noted. The Strategic Environmental Framework includes Environmental Objectives and Specifications, which identify how BESL undertake flood defence improvement works within the Broads Executive Area in a sustainable manner. Where existing tracks are used to access the works corridor, BESL reinstates to at least the standard prior to construction.

<i>Ecology and Nature Conservation</i>	Mink are probably more abundant in the Waveney valley, than in any other part of Broadland. Since BESL will have staff working here for long periods over the next year or so, would it be possible for them to carry out, in conjunction with the relevant landowners, some trapping of this very unwelcome alien species?	BESL construction staff will be encouraged to report sightings of mink but it is not felt appropriate for them to be involved in trapping.
<i>Landscape</i>	There is a lot of scrub and tree growth on some of the ronds, particularly those upstream of North Cove. As our representative has pointed out at a previous site meeting, much if not all of this growth should be removed. This will restore the 'open' conditions which are characteristic of the landscape of this part of the region, and will, in addition, ensure that reed, which is intolerant of shade, starts to re-colonise the ronds, and from them the edge of the river channel. This will, in turn, help to reduce the rate at which the banks are eroded by waves generated by the wind and passing motor craft.	We agree entirely with this - healthy ronds are the ideal natural erosion protection and we will attempt to promote them wherever we can.
	After work on the flood walls has been completed, precautions will need to be taken to prevent scrub and trees re-colonising the ronds and river banks. We were pleased to learn in this connection that it is proposed to sow the latter with grass seed, and then mow them regularly; this should prevent them being re-invaded by woody vegetation.. In places where dredgings have been dumped on the ronds, it may well be necessary to lower their level so that they are once again subject to regular inundation by the tide, thus making it impossible for tree and bush seedlings to re-colonise them.	New areas of rond created will be constructed so that they will be partially inundated during normal tidal events and completely inundated during extreme events. However, it will be very difficult to prevent remaining areas of tree and scrub from encroaching into open areas of reeded rond without some degree of intervention through rotational cutting for example.
<i>Recreation and Navigation</i>	The footpath along the river wall immediately upstream of North Cove staithe is subject to heavy use by anglers, and becomes heavily poached after rain. Precautions will need to be taken here to avoid a repetition of what happened at Puddingmoor, Beccles.	BESL are currently liaising with the North Cove Angling Club and the landowner regarding the effects of the proposed works on angling access during the construction phase. In addition, BESL are looking at ways of minimising the damage caused by anglers during the winter periods especially with potential opportunities for enhancing access whilst protecting the floodbank and rond from excessive pedestrian traffic.
	An attempt should be made by the Broads Authority, in conjunction with BESL, to create a public right of way along the whole length of the floodwall around Peto's Marsh.	This will be added to future issues list. At present we are concentrating on finding a final solution for the Peto's Marsh flood defences. Any development of a new formal or informal right of way would have to be progressed by the Broads Authority and relevant Rights of Way officers from Waveney District Council and the Suffolk County Council East of Area, Rights of Way Team.
	At Worlingham Staithe where the piling is to be retained, this should remain as a 24 hour mooring place.	This will be the case. BESL are currently investigating the opportunities for enhancing this area for mooring and fishing access as the track down to the staithe is due to become a public right of way as advertised by the Suffolk County Council.
	Just upstream of Six Mile Corner, where it is proposed to..."strengthen and maintain erosion protection" for a distance of 175 metres, there are, in fact, two shorter lengths of erosion protection with a gap in between. We think this will probably have to be in-filled. We would point out that the erosion protection in this area was a hazard to navigation prior to it being marked, and that when this was eventually done some two years ago, the markers were both misaligned and unevenly spaced. Moreover, in many places, there is no water's-edge vegetation, and the gabions, being exposed, are very unsightly.	Gabions are indeed relatively unsightly compared with a natural rond. However, due to the erosive forces and water depth of the River Waveney at this location, they were the most cost-effective and sustainable method for providing erosion protection.
	North Cove staithe is the only place between Worlingham and Oulton Broad where ambulances and other emergency vessels can gain access to the river, and, conversely, where people on boats can easily reach a public highway. Given the fact that some of the piling in this location is to be removed, we consider it highly desirable that the Broads Authority should, in conjunction with the landowner, create a 24-hour mooring place here. We would suggest that the cost of the additional piling required (over and above the erosion protection needed) should be shared between them.	BESL are aware that the Broads Authority is considering entering into an agreement with the landowner regarding the provision of a 24-hour mooring at North Cove Staithe.
	Slutton's Dyke is at present heavily overgrown and almost un-navigable. If, as we hope, the Broads Authority is minded to restore this waterway, it would be desirable for this to be carried out in conjunction with the works which BESL are intending to carry out at this location. A joint scheme would result in economies here, particularly in regard to the use of machinery.	We will discuss this with the Broads Authority and co-operate if we can.

	<p>More information is needed about the type of erosion protection to be utilised. We would point out that the Waveney is narrower than the Yare, and is much used by keeled sailing craft. In the circumstances, we doubt whether gabions would be acceptable, unless their location is very carefully sign-posted, or marked by a line of reedswamp. This will be particularly necessary in the North Cove area, since the rond here is quite narrow, thus making it imperative that any bank protection does not project into the river beyond the present bank line. In addition, we do not consider that alder piling is suitable either here, or indeed, anywhere in the region, our reason being that it is, in practice, almost impossible to obtain poles straight enough to prevent wave action washing out the bank behind them. We would also draw attention to the fact that past experience shows that alder poles have a relatively short life when used for bank protection.</p>	<p>Response to alder pole piling comments - we are now using tanalised softwood fenceposts that are straight and have an estimated 20+ year life. Following a recent design review, the proposed erosion protection was confirmed as enkamat bitumen matting along the majority of the riverbank. Gabions mattresses were considered due to their long residual life, but due to the relative difficulty involved with installing them along this section of the River Waveney, they were ruled out. Where existing erosion protection is in an average to good condition, this will be retained, including any sections of piling. With respect to sections of narrow or non-existent rond, BESL as standard practice look to recreate rond (up to 5m wide) in front of the floodbank in order to provide erosion protection to the toe of the bank to prevent undercutting of the bank. Your comment regarding alder poles is noted and BESL have opted to use tanalised timber posts in preference to alder poles due to the natural variation in alder poles. The washing out of material is not such as issue as a geotextile is used behind the line of posts/alder poles, which prevents washout. However, some degree of washout occurs where overtopping occurs and the vegetation has not yet significantly re-established.</p>
	<p>We would like to see an improved measure of co-operation between BESL and the Broads Authority, particularly over the provision of new (and existing) 24-hour moorings and new public footpaths. We are also disappointed that our views concerning the use of re-cycled plastic, rather than timber, for walings etc. have still not been accepted, this despite the assurance given by Mr. Lancaster at the public meeting arranged by the Broads Authority in May 2004.</p>	<p>BESL are considering the use of plastic crest piling along sections of floodbank within Compartments 26, 27 and 28 with timber capping.</p>
<i>Water environment</i>	<p>Where piling has to be removed, precautions will need to be taken to ensure that the bank does not collapse into the adjoining waterway, thereby increasing dredging costs. In addition, when work on a setback section has been completed, the bank should be left in as good a condition for mooring (in locations where there is a public right to do so) as it was when it was still piled. The piling should, of course, be removed in its entirety, and not cut off below the water line.</p>	<p>Reed ronds in front of setback areas will generally NOT be suitable for mooring. Any piling that requires removal will only be undertaken following the results of the trial piling removal at 5 mile reach (compartment 11) and the assessment on sediment transport etc. Where piling is removed, the rond will be monitored to assess rates of erosion and if required, erosion protection would be installed as appropriate to the situation. Where the existing floodbank is at risk of collapse, this is where the piling is close to the toe of the floodbank and the weight of the floodbank on the piling can result in failure. In such cases, the solution is normally setback or rollback, which reduces the weight on the piling and this can increase the residual life of the piling.</p>
	<p>Where piling is to be retained, the walings etc. should be re-furbished, and for this we would urge (not the first time!) that instead of timber, re-cycled plastic be employed due to its much longer life. The Environment Agency has used this material on the banks of the R. Thames for some years, and would be able to confirm that this usage has been very successful.</p>	<p>Timber has traditionally been used due to the ease of use in shaping the capping and walings to suit the piling. In addition, timber is a cheaper material, easily available and blends into the surrounding landscape. BESL are considering the use of plastic crest piling along sections of floodbank within Compartments 26, 27 and 28 with timber capping.</p>
	<p>The height to which the floodwalls are to be raised is not given. However, any raising will not only affect the wind shadow for sailing vessels and reduce visibility from other craft, especially at low tide, but more important, could affect water levels elsewhere in the system. In this connection, we feel strongly that there is still a need for a strategy involving the provision of washlands. In our opinion Peto's Marsh would be a good site for one of these since it would not only help to reduce water levels upstream, but would reduce the length of flood wall beside Oulton Dyke and the R. Waveney which will otherwise have to be up-graded.</p>	<p>The effect of raising the banks by 200 to 300mm is unlikely to have any significant effect on wind shadow. The tree and scrub clearance associated with the works is likely to have some beneficial impact in terms of wind shadow.</p> <p>Peto's Marsh has been identified as a potential washland area and some preliminary modelling has been undertaken to assess the potential benefit in reducing water levels throughout the Waveney valley. However, the initial results show minimal benefit in reducing levels by creating a washland.</p>
<b>Carlton Colville Angling Club</b>		
<i>Recreation and Navigation</i>	<p>Regarding compartment 28 - From the bend in the river at the boundary of Barnby and Carlton Colville, for the length of the marshes eastwards, the rond is flooded at each high tide. This has resulted in a wide shelf being pushed out into the river and can be seen at low tide, and is a hazard to river traffic. Also it has become impossible to fish from our platforms in that area from about half tide down to low and back up again. Dredging is urgently required in this area 'see enclosed map' and the spoil used to heighten the rond.</p>	<p>The reeded rond area plays an important part in providing erosion protection to the toe of the floodbank and is intended to flood at high tide. BESL are working closely with the Broads Authority to identify areas as potential dredging disposal sites through the Authorities development of a Sediment Management Strategy. The Broads Authority is currently assessing the toxicity of dredged material throughout Broadland and the results will inform the development of the Sediment Management Strategy that will include the identification of areas for disposal. BESL are prepared to meet with representatives of the Angling Club to discuss the proposals in greater detail and to identify possible solutions. A meeting was subsequently arranged for Monday 17th January 2005.</p>

	In 1996 the Angling Club were refused planning permission to install a fishery between the floodwall and the drainage dyke as it would prevent planned flood alleviation works from being carried out. We were advised at that time that we would be able to use the excavated area for a fishery after the work was completed. At that time we were assured the work would be completed within 5 years. It was also stated at that time that a new drainage dyke would be installed and the excavated section would not be connected to that system. We have now been advised that this was not so, and the excavation will simply widen the drainage dyke. To form a fishery a dam should be installed at both ends to maintain a suitable water level. The access bridge in the centre of the 4 marshes owned by the Carlton Colville Fuel or Poors Allotment Charity must be retained. As the angling club has a number of fishing platforms installed on the riverbank, access steps should also be installed, as at present to maintain safe access up and over the floodwall, for anglers carrying bulky fishing gear.	BESL have subsequently provided the angling club with a plan showing proposals to excavate a new dyke within the folding for material sourcing. This would not be connected to the existing soke dyke but would have an overflow into it. This waterbody could be stocked and used for fishing.
	Carlton Colville Angling Club's confidence would be increased by further meetings in each area, for further discussions and explanations if proposals or requests from the public are not agreed to.	BESL will keep the Angling Club informed of developments and attend meetings as required. This table provides feedback to stakeholders on their pre-application comments.
<b>DEFRA</b>		
<i>General</i>	I refer to the public consultation document for 26, 27 and 28 for the above works and can confirm that we have no objection or further comment to make at this stage. My colleagues and I are in regular contact with the project staff and our views on the effect of these works on ESA agreements will be as given for other compartments such as Haddiscoe and Halvergate. I believe that the impact on ESA agreements in this section of work will be much less than the latter areas with so much of it being online strengthening. The main issue here will be how much the marsh side of the soke dyke is widened. However, the creation of a shallow berm (as indicated in diagram 1) rather than a steep sided and abrupt edge, may help reduce the impact on agreement areas, particularly if it becomes dominated by reed and other marginal aquatic plants. The phase 2 area around Peto's marsh, all bar a very small section at the south western end where there is a proposal for a short section of setback, is not subject to ESA agreements. I recently attended a site meeting on Beccles Marshes where a specific ESA agreement was discussed with BESL staff and the Agreement holder and would be happy to do so with other landowners who may have concerns over their agreements.	Comments noted.
<b>English Nature</b>		
<i>General</i>	We do not believe the current proposals for Peto's Marsh represent the best and most sustainable flood management solution. We are pleased works will not be undertaken on this section as part of the proposed scheme, thereby avoiding compromising an alternative solution in the future. We believe multi-party effort needs to be expended to progress a setback solution.	Comments noted.
	The proposed works on Compartment 26 and 27 identifies significant lengths of 'strengthen and install erosion protection'. This appears counter to the 'standard' defence prescriptions we have come to expect. English Nature supports the alternative of setback of the wall in all location within these Compartments, except possibly the Natura 2000 site. Accordingly without justification we would object to these elements of the proposal.	Setback is generally not feasible in these compartments due to poor quality material on the marshes. Construction of d setback banks would therefore require the importation of material - as will be the case for the section of setback downstream of Beccles bridge - and regular maintenance due to settlement. Notwithstanding the poor quality of material, setback would result in an increased loss of grazing marsh habitat for relatively little gain in terms of flood defence. In many areas the floodbanks are protected by relatively wide ronds so strengthening is the Strategy solution for the majority of these compartments (80% of compartment 26; 70% of compartment 27).

	The proposed works on Compartment 26 and 27 and part of 28 identifies significant lengths of crest piling. This appears counter to the 'standard' defence prescriptions we have come to expect. English Nature supports the construction of earth banks with material sourcing coming from soke dykes or the creation of other shallow water areas. Accordingly without justification we would object to these elements of the proposal. We note as banks continue to settle and water levels rise, the height of crest piling would need to increase. Crest piles must act as a barrier to wildlife.	Crest piling was identified as the most appropriate solution due to <ul style="list-style-type: none"> <li>▪ Poor material for constructing 'full height' earth banks</li> <li>▪ Additional material on top of the bank will disturb the existing over-consolidated state of the clay material and further accelerate settlement. The crest piling will settle at a lower rate than the newly raised bank. The worst case scenario expected is the settlement of the bank independent of the crest piles. In this case the piles will be designed to take account of the loss in passive resistance.</li> <li>▪ Strengthening and raising the crest of the banks would involve backfilling all the existing soke dykes due to the increased footprint of the rear slope. This, combined with the additional material requirement, would create large soke dykes and have a far greater impact on grazing marsh habitat.</li> <li>▪ We believe the issue of piles acting as a barrier to wildlife can be overcome by a combination of design and vegetation management</li> <li>▪ The crest piling in compartment 28 is replacement of existing that protects Spratt's Water and Marshes SSSI</li> </ul>
<i>Ecology and nature conservation</i>	The timescale, timing and methodology of the works will be critical. All SSSI sites affected support in the winter significant bird populations, some of which are recognised within the Broadland SPA and Ramsar site. Breeding birds are also important on these sites.	Comments noted. Details will be provided in the Environmental Statement.
	We support, and in line with SEA policy, compensation provision for habitat lost with the SSSIs. This is in no way connected with the tests required under the Habitat Regulations 1994.	Comment noted
	We will need to be convinced that the standard of flood management offered by these works is consistent with the nature conservation objectives of the two designated wildlife sites protected by this scheme.	The proposed levels will be agreed with EN in advance of submitting the planning application.
	We understand significant material in the form of consolidated dredgings is situated on White Cast Marshes. These parts of the Natura 2000 site would be enhanced if this material were to be removed. Given the proximity of the flood bank we would like serious consideration to be given to this opportunity. Avoidance of damage and disruption to Natura 2000 features within the soke dyke may also influence this decision.	BESL have examined this material and unfortunately it is not suitable for use in bank construction. It could possibly be used as in-fill in setback areas along the Waveney if the Broads Authority are prepared to move it.
<i>Water Environment</i>	We wish to see hydrological modeling undertaken to evaluate the effect of this scheme in combination with other planned schemes throughout the Waveney/Yare catchments on water levels and saline intrusion on the Stanley and Alder Carrs SSSI and the White Cast Marshes part of the Spratt's Water and Marshes SSSI.	This information will be provided to English Nature before the planning application is submitted.
	We wish to see an evaluation of the possible increased flood risk to Geldeston Meadows SSSI of implementing the scheme for Compartments 26, 27 and 28 before undertaking works on that site.	This evaluation will be included as part of the hydrological monitoring. BESL are currently progressing the design for Geldeston Meadows (compartment 25A) and it is likely that works will start here in 2006, the same year as compartments 27 and 28.
<b>Lower Waveney IDB and the Oulton, Carlton Colville and Barnby IDB</b>		
<i>General</i>	Your plans indicate that the works around Peto's Marsh will be deferred until the next phase of the works. The Boards believe that it is essential that this work be carried out as a priority. This is one of the weakest parts of the existing river wall and any delay in that section is going to leave the surrounding marshes at unnecessary risk.  The Oulton, Carlton Colville & Barnby Board is and has for many years been pumping substantially more water than it should given the size of the catchment and this is down entirely to the weakness in the river walls and the Board wishes to ensure that this is rectified as a priority. It is understood that there may have been some difficulty in reaching agreement over access with the landowner in the Peto's Marsh area that may now have been overcome. The Board would be happy to assist in any continuing discussions there may be over this. The plans do not make it sufficiently clear what is going to happen in the immediate vicinity of the three IDB pumping stations in these compartments. The Board requires further details as to how the works will affect the stability of the pumping stations themselves and the intake of water and reserves the right to make further representations in respect of any proposals in these areas.	Access to survey Peto's Marsh has now been given and an assessment undertaken this year. At a meeting with compartment 28 landowners and the IDB on 30 March 2005, it was accepted by all present that Peto's Marsh could be delayed until phase 2 subject to close monitoring of the condition of the banks by BESL in the meantime.  BESL would not undertake works that would threaten the stability or operation of pumping stations. Further information will be provided to the Board.
<i>Landscape and Visual Quality</i>	The number of and the particular trees to be felled needs to be clarified so that no more trees than strictly necessary are taken. This is an important part of the landscape in compartment 27.	Since this comment was made a site meeting has been held with Mr Blower to explain the approach to tree clearance. The tree clearance will now be done in winter 2005/06.
<b>Ramblers Association</b>		

<i>Recreation and Navigation</i>	I am secretary of the Waveney Ramblers & co-ordinator of the Beccles Walking for Health Scheme. I frequently take groups of walkers along all 3 compartments and have seen at high tide times the lessening width of the raised banks in many places. I do not feel that I'm qualified to state categorically the exact remedies required and am therefore placing my trust in BESL. If it's necessary to carry out this work we, as walkers, have to understand that our curtailment of walks in certain areas over the next 2 years is for the best in the long term. It would be nice to know when and where it would be OK to walk during the times when work is in progress. I realise this is a difficult request and our fickle British weather has a big part to play in the timing of the works. For both of the organisations for which I lead walks, I produce a 4-monthly programme in advance. Would it be of any help to you if I was to send you a copy of each programme as and when I produce them? You would then be able to advise me when planned walks could not be undertaken due to imminent work being carried out. If I have sufficient notice I can then try and make alternative arrangements.	Comments noted and welcomed. BESL will maintain contact with the Group and provide regular updates regarding progress of the works in order to minimise disruption to public access.  With regard to the potential impacts of the works on public footpaths, BESL require that public footpaths along the floodbank crest are formally closed for Health and Safety reasons. However, BESL look to provide alternative routes where possible to maintain links between footpaths and minimise loss of public access during the construction works and for a period on completion whilst the floodbanks consolidate and re-vegetate. With regard to Compartment 26, the Beccles Marsh Trail will provide alternative routes and BESL will provide all necessary temporary crossing points and any short diversions within the grazing marshes to allow circular routes. With respect to Compartment 27 and 28, all landowners have objected to the provision of footpath diversions within the grazing marshes and as such, BESL do not propose to provide an alternative other than by signing existing routes outside of the works corridor.
<b>Norfolk and Suffolk Boating Association</b>		
<i>Recreation and Navigation</i>	No navigation problems identified provided that the position of the toes of the setback slopes are indicated by markers.	Comment noted
<b>RSPB</b>		
<i>General</i>	Flood Alleviation Strategy in a Strategic Context The RSPB believes that it is necessary to carry out flood defence measures with a strategic and co-ordinated approach to ensure the Broads are managed in a sustainable and cost-effective manner, and that the UK meets its conservation objectives under European nature conservation legislation and its commitment to the Biodiversity Action Plan.	Comment noted.
	We have concerns that the underlying Broads Flood Alleviation Strategy is not of sufficient detail to enable the informal strategic environmental assessment briefly mentioned in the consultation document to fully assess and evaluate the impacts on nature conservation of the Broads Flood Alleviation proposals at the time of implementation. We are also concerned that the underlying Broads Flood Alleviation Strategy was formulated in advance of recent reviews to Government Flood Defence Policy and may therefore not accord with current Government policy. We firmly believe that a review of this Strategy is required and until this has been undertaken we do not consider it prudent to undertake piecemeal development unless it is accompanied by proposals to offset current and future habitat losses both to designated sites and to comply with the DEFRA target of no net loss of BAP habitats.	This issue is also being reviewed as above. Flood defence schemes must continue in the meantime – this does not prejudice the outcome of the review.
<i>Ecology and nature conservation</i>	We believe that the proposals have the potential to directly or indirectly impact on the following designated sites: Broadland Special Protection Area (SPA) Broadland Wetland of International Importance (Ramsar) The Broads candidate Special Area of Conservation (cSAC) Stanley and Alder Carrs SSSI Barnby Broads and Marshes SSSI Sprats Water and Marshes SSSI Geldeston Meadow SSSI We would expect BESL to bring forward only those flood alleviation proposals that are consistent with the nature conservation objectives of these sites.	The potential direct and indirect impacts of these schemes on the designated sites will be fully assessed in consultation with English Nature.
	The potential impacts of the proposed works on designated interest features will need to be fully considered. Careful consideration will need to be given to timetabling the work programme to avoid issues of disturbance on wintering and breeding bird populations. We would wish to see appropriate surveys conducted for breeding and wintering birds in order to detail the importance of these sites for SPA features, where possible to minimise negative impacts upon them, and if necessary allow for proposals for mitigation.	The Environmental Statement will include an evaluation of impacts on designated site features. BESL have been undertaking winter bird counts of the SSSIs in compartments 27 and 28 since 2002-03 and breeding bird data is available from the Suffolk Wildlife Trust. BESL have successfully used vegetation clearance and, if pre-start checks find nesting birds, exclusion zones to minimise impacts on nesting birds.
	We are concerned about any uncompensated loss of grazing marsh, a priority Biodiversity Action Plan (BAP) habitat. DEFRA have set a high level target (9a) that flood defence schemes should meet, namely no net loss of BAP habitat. Whilst we appreciate that the Broads Flood Alleviation Scheme has already been subjected to DEFRA scrutiny and secured grant aid, we consider that it would be best practice to ensure that each scheme implemented on the ground would comply with DEFRA targets should an application for grant aid be made now. We do not believe loss of grazing marsh (a BAP habitat) is offset by the creation of soke dykes and ronds and therefore in compliance with the DEFRA target. Taken in context across the Broads the Broadland Flood Alleviation Scheme flood improvement works could result in significant areas of grazing marsh habitat loss.	The Project is currently reviewing this issue with the RSPB, Norfolk Wildlife Trust, English Nature and the Broads Authority.



<i>Water Environment</i>	In order to determine the effects on designated sites, full hydrological modelling would be required for this scheme both alone and in combination with other schemes within the river systems, both for water level changes and alterations to saline intrusion. We would wish to see the preferred options for flood protection developed on a case-by-case basis with full consideration given to long-term sustainability and to capitalise on opportunities for conservation gain.	BESL undertakes hydraulic modelling for all proposals comprising an assessment of impacts (alone and in-combination with other flood defence proposals) on levels, velocities and existing inflows/outflows of saline water at Great Yarmouth. The hydraulic model provides information of level changes adjacent to designated sites and is used to assess strategic changes in inflow/outflow through Great Yarmouth in order to identify potential impacts on the migration of saline water upstream. A number of compartments (identified by RSPB and other organisations interested in nature conservation) are currently being evaluated to determine whether or not managed flooding or removal of defences completely may be a more appropriate long-term solution for managing water levels whilst providing conservation gain.
<b>Watson Farm</b>		
<i>General</i>	The Proposal to undertake phase 2 at a later date is completely unacceptable. The wall around Peto's marsh is the weakest spot and needs to be done a.s.a.p. If it is confirmed that Phase 2 is to be done at a later date then I will reconsider my position on my marshes. There are more issues with not doing the work all at once. Flood protection cannot be done piecemeal.	At a meeting with compartment 28 landowners (including Mr Watson) on 30 March 2005, it was accepted by all present that Peto's Marsh could be delayed until phase 2 subject to close monitoring of the condition of the banks by BESL in the meantime.
<b>Waveney Anglers</b>		
<i>Water environment</i>	You appear to be doing nothing in the immediate areas at Beccles Quay/ Marina which is where disruptive flooding already takes place. What it really needs are the quay banks raised 12"	There is no defined floodbank and the land behind Beccles Quay/Marina rises to higher ground
<b>Waveney District Council</b>		
<i>General</i>	On behalf of Waveney's drainage interests, I have no comment to make on the proposals, as I am confident that they are the most appropriate in the circumstances.  I have not checked the council's land ownership holding, but clearly any proposed works on land within council ownership will need to be the subject of negotiation with our Legal/estates and Facilities sections at the appropriate time.	Comment noted.
<b>Worlingham Parish Council</b>		
<i>General</i>	The floodbank strengthening which was done at Worlingham level many years ago seems very satisfactory	Comment noted.
<i>Recreation and Navigation</i>	Worlingham Parish Council is often asked about the state of the footpath along the river wall from Beccles to Oulton Broad. The path does not seem to be trimmed enough and at times ramblers find the path gets impassable after wind and heavy rain	The flood defence works will improve the condition of the footpath through removal of trees and shrubs that overhang and shade the path and by increasing the crest width to 2m throughout. Following construction BESL will cut the floodbanks to aid vegetation re-establishment and control weeds. Thereafter, BESL will work with the other agencies involved in grass cutting this area (Beccles Town Council, Suffolk County Council and Waveney District Council) to ensure a co-ordinated approach.