

Recommendation Report for Planning Permission

REF NO: P/97/15/PL

LOCATION: Church Norton Spit, Pagham Beach

PROPOSAL: Managed breach of shingle spit & blocking of adjacent tidal inlet channel with shingle barrier. Formation of a shingle island within the Harbour following the excavation of an adjacent area of Spit. This application is accompanied by an environmental statement.

SITE AND SURROUNDINGS

DESCRIPTION OF APPLICATION

The proposed breach will be located 350m to the South West of the natural breach location.

The proposed breach design would be 40m wide at the base (set at the Mean Low Water (MLW) elevation) and 80m wide at the Highest Astronomical Tide (HAT) level. The excavated volume to the top (crest) of the spit within the breach area would be around 55,000m³.

The locally excavated shingle would then be used to infill an adjacent part of the existing tidal channel. The crest level of the infill area would be approximately 4.8m ODN. It would have 1:8 side slopes and would require some 45,000m³ of fill.

In order to access the site, an access route will be designated from the existing closed County Council car park at the end of Harbour Road to the Spit. It will then be necessary to bridge the channel to enable plant to get across (plant will then remain throughout the construction period) with a transient shingle access route which will then be allowed to wash away.

A more permanent causeway is then required during the construction period to facilitate access by contractors and the replenishing of fuel. This will be created at the low-water level in a position where the excavated material is going to be placed for the channel infill.

It is anticipated that the work will take 8-11 weeks to complete (the shorter period is only possible if temporary steel sheet piling deemed to be unnecessary).

To compensate for the potential impact on the Little Tern habitat on the Spit, it is proposed to create a new Tern island within the Harbour. This will be achieved by placing excavated shingle atop an existing relict concrete training wall in the Harbour and then cutting it off from the Spit to create an island. Vegetation will be cleared from the island and fox-proof fencing added to deter predation of nesting Little Terns.

The island will be 0.36 hectares with a crest area of 0.15 hectares. The crest will be around 3.8m ODN. The side slopes would be set at 1:1 on the northern side and 1:5 on the southern side. The volume of landscaping material would be 1,900m³ of which around 1,000m³ can be derived if needed from the excavated channel. A further 900m³ of shingle may then be translocated from the managed breach site to contribute to the formation of the island.

It is proposed that a stakeholder group be set up to regularly monitor the breach and advise on whether there is any need for post-construction shingle excavation or recycling work to keep the breach open.

The application includes land in Chichester District and a separate determination under reference SY/15/03053/ will be made by them. A third determination (Marine Licence and Marine Conservation Zone Assessment) is being made by the Marine Management Organisation under reference MLA/2015/003390.

SITE AREA

The submitted red line area is 11.83 hectares.

TOPOGRAPHY

Variable - dependent on the tides/weather.

TREES

None affected by the development.

BOUNDARY TREATMENT

None.

SITE CHARACTERISTICS

Open shingle spit with active geomorphology.

CHARACTER OF LOCALITY

Coastal location adjacent to a residential area based on former railway carriages.

RELEVANT SITE HISTORY

There is no relevant planning history relating to this site.

REPRESENTATIONS

Representations Received:

Pagham Parish Council – Support:

“As the applicant, the Parish Council without question wholeheartedly supports this application. There is an overwhelming community support for a sustainable solution to the very serious flood and erosion situation which a significant part of the Parish is facing. PPC is under pressure to seek consent as a matter of extreme urgency. We are lobbied by Residents Associations and concerned householders to be able to implement necessary "works" before winter.

We are aware that the revised timeline for consent of 22nd August is a worst case scenario, and, with respect, would urge that this matter be expedited in order to achieve consent by mid/late July at the latest in order to facilitate final fundraising and contractor tendering, prior to the Sept 1st "window" preceding winter bird migrant arrival. We know that the Regulatory Authorities support the scheme and the consultation process can thus be streamlined as just one example of the ongoing cooperation and partnership between all parties.”

A significant number of local residents have written in to express support for the scheme. These include the following:

Consultation on the Original Submission (January 2016):

- 250 letters of support from local residents and from Cllr Phil Hitchins, Pagham Beach Holdings Ltd & Pagham Beach Residents Association;
- 1 letter of no objection; and
- 5 petitions of support from the Pagham Flood Defence Trust comprising of 2, 7, 10, 173 & 1,155 signatures.

Consultation on the Amended Information received May 2016:

- 13 letters of support.

The comments made in the letters of support are now summarised below:

(1) Reducing Flood Risk –

- The spit is redirecting the outflow from Pagham Harbour so that it runs along the beach, causing the beach to erode through loss of shingle. Cutting the spit will allow the beach to accrete and re-form;
- The beachfront in Pagham is a crest, rising higher than the land behind it. As such, it forms a natural flood defence barrier between the sea and the village. Should the beach erosion lead to the crest being breached, the village will be flooded. Should this happen, the value lost in destroyed property will significantly outweigh the cost of breaching the spit;
- Houses fronting the sea risk potential permanent destruction leaving residents homeless with mortgages on homes that no longer exist. This is in contrast to ordinary floods which usually incur only temporary, repairable damage;
- Flooding could lead to wider infrastructure failure with the sewage pumping station and electricity substation notably at risk. In the case of the former, Southern Water are aware and under their duty of care should be bringing something to the table to help ensure this doesn't happen;
- Seafront businesses may be flooded. If a large number of residents and the holiday park are lost, this would have knock-on effects on other retail and hospitality businesses in Pagham and Nyetimber;
- Property values have been significantly reduced due to the risk of flooding. This is making moving difficult as residents are unable to sell their homes at a reasonable price. Moreover many residents' homes are now uninsurable;
- What's happening at Pagham will in time be repeated at Aldwick and Bognor Regis, largely due to the change in flow at Pagham Beach;
- Winter storms cause the most erosion of the coast. Delaying further is risky and causes more unnecessary worry and stress for residents;
- Flooding will incur substantial costs from emergency rescue, housing etc. If people are rendered homeless it will put added pressure on scarce social housing resources in Arun District. PWC estimated the cost of the recent floods in Cumbria at £500m;
- Other detrimental effects to the local economy may include the loss of council tax revenue resulting from house destruction and continuing deterioration to the viability of a once vibrant community. The recent closure of the King's Beach Hotel is an example of a growing lack of confidence in the Pagham economy. Many businesses are already noting a downturn in takings;

- The ecological cost of a flood could potentially be huge and last for generations. This includes the potential destruction of the habitats of various types of wildlife;
- The Manhood peninsula of Selsey and Pagham provides 10% of the food needs of the UK. Potential loss of Grade 1 agricultural land in the event of flooding is unacceptable;
- Local authorities and government agencies involved should remember that bad flooding has happened locally recently. Chichester had major flooding in 1994 and Pagham now forms part of its flood relief. Reinstating the harbour should allow Chichester's flood water to find an outlet to the sea; and
- Failure to reopen the entrance could result in its natural closure which will then cause the Chichester flood drainage sluices to close.

(2) Protecting the Spit as a Wildlife Habitat –

- Natural England MCZ 2013 report expressed “moderate” confidence in the existence of the DeFolin's Lagoon Snail in the area. In March 2013 “no live species were found”. Claims of the presence of the snail should be treated with caution;
- Prior to the spit forming in the last 10 or 15 years the wildlife that lives there currently lived elsewhere. Presumably it can live elsewhere again should the spit disappear;
- From a 1km spit the channel will be no more than 50 metres across, leaving 950 metres of habitat for the snails;
- The increasing encroachment of the spit to the east is having a detrimental effect on the sea bed and associated sea life offshore. Why prioritise the snails and shrimp over these other wildlife impacts?
- Compensation habitat for little terns may offer more protection to them than the exposed spit, especially with the co-operation and input of the RSPB. At present they are at risk from predation and disturbance from dog walkers;
- People should be prioritised over wildlife. “If we have to choose between people and wildlife we will always, of course, choose people” Sir James Bevan (CEO Environment Agency) 2 January 2016;
- “A sound means has been identified to ensure that requirements of the relevant nature conservation legislation can be met. (Chiefly, provision of compensatory habitat within the existing boundary site.)” Relevant legislation here being the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations); and

- The managers of the Pagham Harbour Local Nature Reserve may benefit from more volunteers coming forward from the Pagham community.

(3) Beach Amenity / Recreation and Tourism –

- The scour current has created very steep cliffs and inclines in places making walking along the beach hazardous. You can no longer windsurf or launch dinghies or fishing boats. People with limited mobility and families with prams are now unable to access the beach at all. This discourages tourism;
- The strong current (up to 14 knots) running out from the spit makes swimming and sailing unsafe, especially near the spit 'mouth'. Tourists (unaware of the current) and children may be especially susceptible to the risk of drowning;
- The vastly diminished beach front has left much less space for dog walking resulting in a concentration of dog mess in the remaining area;
- The view along the beach was previously beautiful but now resembles a construction site, regularly populated by vehicles for moving shingle, temporary metal fencing etc;
- The yacht club's seating area has been destroyed along with the boat-launching ramps they and visiting clubs use;
- As the beach is no longer usable for recreation this increases pressure on neighbouring beaches;
- The breach will allow lifeboat access to the harbour again should anyone need rescuing;
- Barbed wire, a pill box and old groynes are being unburied by the scour's effects providing more hazards to beach users;
- Pagham's Dunkirk memorial has had to be removed to prevent it falling into the sea;
- The spit has fundamentally changed the bay detracting from it being what some Pagham Yacht Club members claim was *"the best sailing water in the country"*;
- The tourism trade will be boosted by interested spectators, walkers and wildlife followers that will be fascinated by the positive changes; and
- Minor further modifications to add walkways etc. will enhance the new Spit cut feature that could allow access for ramblers and holidaymakers to the currently isolated (from Pagham) Spit. The associated tourism revenues may offset or exceed the cost of the breaching operation.

(4) Re-establish the Site of Special Scientific Interest (SSSI) –

- The whole of the beach with associated vegetation and wildlife is a designated SSSI which is being progressively destroyed by erosion. Breaching the spit will lead to the SSSI re-establishing itself.
- The environmental gains associated with the spit are more than offset by the cost of the loss of the SSSI;
- Council has a duty to conserve and enhance the special interest features of the SSSI;
- The application creates minimal impact on designated interest features, and any impact that may be perceived to be of potentially greater significance will be mitigated by specifically designed measures and/or best practice working methods; and
- The destroyed SSSI vegetated beach was considered to be in poor condition. As this regenerates subsequent to the breach it can be more carefully managed and maintained in better condition.

(5) Short Term Fixes have not worked –

- There have been various attempts to secure the beach including creating a revetment, rearranging the heights of the breakwaters and emergency actions to add back shingle to the depleted areas. These have ultimately only been temporary and of limited success. Cutting the spit would have a greater chance of long-term success and so be more cost-effective;
- Estimates of the cost of such emergency work range from £1.5 to £2.5m. The cost of breaching the spit is estimated as £750,000 to £1m, with an additional cost of continuing maintenance. This would be less than current mitigation measures;
- The heavy machinery associated with each of these numerous short term measures is detrimental to the SSSI. It would be better to go ahead with cutting the spit which would be a 'one-time' measure. The SSSI would subsequently be allowed to recover undisturbed;
- The removal of rocks from the groynes to create and reinforce the revetment has in fact worsened the problem by exacerbating the outpour current from the harbour;
- The council has a power, not a duty, to protect homes from the sea. There is no guarantee it will have funding to continue the mitigation measures into the future;
- By undertaking the works described, ADC has accepted the case to defend properties in the Pagham Harbour area; and
- The spit is continually increasing in size. The longer it is left, the more expensive breaching the spit will be.

(6) Accords with legislation and planning policy –

- The proposed solution accords with all relevant legislation and planning policy (set out below) so there are no grounds for refusal.

Chichester Local Plan: Key Policies 2014-2029:

22: 'Integrated Coastal Zone Management for the Manhood Peninsula'

44: 'Development around the Coast'

48: 'Natural Environment'

Arun District Local Plan 2003 Saved Policies:

GEN10: Tidal Flooding and Coastal Defence

GEN19: Coast Protection and Sea Defence Works

(Emerging) Arun District Local Plan 2011-2029:

W DM4 Coastal Protection

TOU SP1 Sustainable Tourism and the Visitor Economy

Other plans:

- The Draft Pagham Parish Council Neighbourhood Development Plan (Policies 1 Coastal Protection; and 8 "Tourism Development");
- Pagham to East Head Coastal Defence Strategy (2014); and
- Beachy Head to Selsey Bill Shoreline Management Plan (2006).

(7) No Alternative –

- The temporary measures used so far are reactive to the problem rather than solving the underlying cause of the scour current from the harbour mouth;
- ABPMer have investigated alternative options and concluded that cutting the spit is the optimal choice; and
- The methodology has been informed by past case examples and underpinned by the large amount of research and management work that has been carried out on Pagham Harbour and Pagham Beach over many years.

(8) Historical Precedent –

- The harbour mouth was successfully maintained in its current position but since 2003 it has been left with no intervention. Maintenance was allowed to lapse to save money, which has proved a false economy as much more has been spent on the temporary measures. Maintaining the harbour mouth cost £10,000 a year between 1961 and 2003.

(9) Miscellaneous –

- The uncertainty caused by delaying the decision for several years has caused substantial stress to local residents. This is harming their mental and physical health;
- The two councils and statutory consultees should work together positively to expedite a solution to the problem;
- The local community has raised significant funds to contribute towards the cost of cutting the spit, which is indicative of the level of support;
- Pagham beach shoreline with its railway carriages is unique. It is of historic interest and represents the social heritage of our community;
- Pagham harbour is not 'natural'. It has been subject to a variety of different management techniques for decades. As such it is meaningless to talk about "maintaining a natural environment";
- Breaching the spit is a more appropriate 'soft' solution that works with natural processes in view of Pagham's history and the dynamics of the environment;
- Breaching the spit emulates a natural process that has occurred in the past and will reoccur in the longer term future;
- It provides greater assurance that the tidal functioning of Pagham Harbour will be maintained;
- ABPMer's solutions are innovative and sensitive to geomorphology and the Habitats Regulations;
- With an artificial, managed breach the potential adverse effects can be mitigated and compensated. Should a natural breach occur the adverse effects may be more difficult and expensive to manage;
- The Water Framework Directive requires improvements to the water body in Pagham Harbour. ABPMer states that the breach will lead to slight improvements;
- Historically many of the changes in the beach and harbour have been due to management as opposed to natural processes. This management has led to the beach formation. It is inconsistent to assert that natural processes should prevail now;
- Submitted plans show the extent of the spit as at January 2015. The spit has continued to grow, overwhelming groyne no. 1. This strengthens the case for the application;

- The proposed shingle banks will blend well with their surroundings, and will be sympathetic in appearance, which is important in this environmentally sensitive location;
- The continued accretion of shingle will continue moving eastwards until it overcomes the ability of the sea to keep the entrance clear and the harbour will close. The Environment Agency has stated it would re-open the harbour mouth. Dealing with the spit then is inevitable;
- Will give faith to UK-wide communities that the governing bodies are listening;
- Will demonstrate the technical capabilities of the various engineering companies involved;
- The application should have penalty clauses and key events written into it to ensure the work is completed in a timely manner; and
- This is a solvable problem unlike some parts of our coastline.

Comments on Representations received:

The Parish Council comments are noted.

As the recommendation of this report is to approve, it is not considered necessary to comment on the grounds of support. However, it is important to point out that not all of the comments made in support are material planning considerations, not all are necessarily accurate and many of the claims made are not supported by evidence.

The following comment is not considered to be a material planning consideration:

- Impact on Property Values

The following comments may not be accurate or are not supported by evidence:

- That the value lost in destroyed property will significantly outweigh the cost of breaching the spit – this is not supported by any evidence;
- Estimates of costs of emergency work – this is not supported by evidence;
- The Manhood Peninsula of Selsey and Pagham provides 10% of the food needs of the UK – this is not supported by evidence and appears incorrect as there are no cereal crops grown here and no pastoral farming either;
- The impact on local businesses – this is only supported by anecdotal evidence;
- That people with limited mobility & families with prams are now unable to access the beach – whilst they may not be able to access parts of the beach, they can still access much of it. This is a shingle beach and is not easy to walk on; and
- Much less space for dog walking resulting in a concentration of dog mess in the remaining area – as stated above, there is still plenty of shingle to walk on.

CONSULTATIONS

Environment Agency;
 Environmental Health;
 Engineering Services Manager;
 Engineers (Coastal Protection);
 Natural England;
 Chichester District Council;
 Estates Manager;
 Ecology Advisor;
 Historic England;
 Head of Planning Policy & Conservation; and
 Marine Management Organisation

The RSPB are not a statutory consultee but have been heavily involved in the determination process and their comments are therefore included within this section.

Consultations responses received:

CONSULTATION ON THE ORIGINAL SUBMISSION (JANUARY 2016):

NATURAL ENGLAND – No objection:

“Natural England provided a letter of advice to Arun District Council in response to the above consultation on 7 January 2016 and to the MMO on 18th December 2015. These letters were not as clear as I would have wished and I have therefore taken the opportunity to clarify and reissue our formal advice in this letter. As well as our advice to you as the planning authority, we are providing the same advice to the Marine Management Organisation (MMO), which is responsible for considering an application for a marine licence for this proposal.

Natural England recognises the significant problems posed by the coastal erosion at Pagham and we understand how distressing and difficult it is for those who are affected. We are committed to helping the community in any way that we can. Our role is to provide advice to your authority and the MMO on the legally protected nature conservation interests in this area, in particular the dynamic coastline, and how to maintain and support the recovery of the associated coastal, wetland and marine habitats and species, so that you and the MMO can make the necessary decisions to achieve a long term solution. We are more than happy to continue working with all parties to help achieve this aim together.

Natural England does not object to the proposal. We have already met and agreed with your authority to discuss how Natural England can further assist and help with this proposal. Our detailed response is appended.

In summary, based on the information provided to us in the Environmental Statement:

- *We welcome the work that has been done to develop the planning application to consider ways to work with the evolving spit to resolve the erosion and the*

Environment Statement addresses many of the points, whilst providing a sound platform to work up any further detail that may be required to address the environmental impacts we have highlighted through our advice.

- *Our advice is that the proposal, as submitted, is likely to have a significant effect on both the Pagham Harbour Special Protection Area and Ramsar site. Because of this we advise an Appropriate Assessment should be undertaken in accordance with the Habitats Regulations and in line with the Coastal Concordat (A Coastal Concordat for England) by a single lead competent authority. This means that, if your authority agrees with our advice, the lead authority will carry out an assessment to understand and address the possible environmental effects of the proposed works on the Pagham Harbour Special Protection Area and Ramsar site.*
- *Our advice is that that the Marine Management Organisation undertakes a Stage 1 Marine Conservation Zone Assessment test of the potential impacts on the Pagham Harbour MCZ in accordance with their duties under the Marine and Coastal Access Act (MCAA) (2009).*

Natural England will support the refinement of the proposal to ensure the required confidence needed in the measures designed to avoid and/or mitigate impacts on features of the Pagham Harbour Site of Special Scientific Interest is in place.

Annex 1: Detailed advice on impacts

Pagham Harbour Special Protection Area (SPA) and Ramsar site

The application site is within the Pagham Harbour SPA, a European designated site, and is also listed as Pagham Harbour Ramsar site. The Conservation objectives for each European site explain how the site should be restored and/or maintained.

We advise that the proposal is likely to have a significant effect on both the Pagham Harbour Special Protection Area and Ramsar site. We therefore advise that an Appropriate Assessment should be undertaken in accordance with the Habitats Regulations and in line with the Coastal Concordat (A Coastal Concordat for England) by a single lead competent authority.

Natural England has reviewed the proposal and advises on the following potential impacts on designated features:

1. *The direct loss of breeding habitat for little terns, and the potential increase in disturbance and predation.*

The shingle spit at Pagham Harbour provides the main area where the little terns nest. During 2015 the site experienced its highest number of fledged chicks (16) since 1979.

We suggest that the proposal for creating new little tern breeding habitat within the site, to replace the current breeding sites on the spit could be developed further. This will help to increase confidence that the potential impacts can be successfully addressed. Our view is that wardening procedures during nesting periods would also need to be robust to reduce

the impact of potential increased disturbance. This project should work with the EU-funded LIFE+ project being implemented by the RSPB with an aim at Pagham Harbour to have a breeding colony of more than 20 pairs to increase confidence in the proposed mitigation measures.

- 2: The potential for the harbour to close as a result of the breach, thus removing the harbour from tidal influence, impacting on habitats that occur within the harbour, including saline lagoons, seagrass beds and saltmarsh which in turn support both terrestrial and marine species (also relevant to SSSI features).*

The nature of the dynamic coastal processes means there is uncertainty whether this proposal increases this risk or not. Should this occur it presents a significant risk of negative impacts on the supporting habitat of the inner harbour for SPA/Ramsar bird populations (and in addition impacts on SSSI features including birds and habitats, and also on MCZ features).

The current proposal for mitigating any closure is that the breach will be re-opened, but only once, and there is no proposal put forward to address any subsequent closure. We think that if the harbour remains closed for a substantial period there may be a significant adverse impact on the SPA/Ramsar site (and SSSI / MCZ) and either further measures would need to be put in place to remedy subsequent closures or additional evidence on the likelihood of this.

- 3: Construction impacts that may reduce foraging habitat for, and disturb, overwintering birds.*

The application proposes a 50m disturbance zone around the construction area on the spit used in the assessment, but this only considers plant movements and not disturbance from people working on site (which can result in disturbance impacts at greater distances). However, we recognise that this impact will be temporary and there will be other areas of habitat for the birds to use within the harbour.

The application predicts a loss of 4.5 ha of intertidal foraging habitat (representing 4.5% of this supporting habitat within Pagham Harbour SPA/Ramsar site) due to changes in water levels during the construction of the proposed project. Natural England recognises that this impact will be temporary (over a 9-11 week period and only occur during one winter) and there will be other areas of habitat for the birds to use within the harbour.

Natural England suggests that cold weather restrictions (such as those used for wildfowling) should be considered to ensure that bird fitness is not compromised during this period. We also suggest that a watching brief could be kept on the little tern breeding period, after terns have fledged and before the peak of overwintering birds arrives, to ensure no impact and provide the widest opportunity for construction.

Pagham Harbour Site of Special Scientific Interest

Natural England provides the following advice regarding the impact of the proposal on SSSI features:

- *Vegetated Shingle*

The Environmental Statement identifies the direct loss of 1.2 ha of perennial vegetated shingle habitat within the breach area, and additional vegetated shingle will also be lost on the distal end of the spit. We recognise that the proposals in the Environmental Statement aim to offset this loss through the creation of a new area of habitat where the excavated material is placed across the existing tidal channel and through the reworking of the spit. We think that the detail on the construction method would help to increase confidence in the success of the proposal.

- *Breeding and over-wintering birds*

The SSSI breeding species that use the spit include little tern (also an SPA feature) and two species from the SSSI breeding bird assemblage (oystercatcher and ringed plover). These two wader species currently nest on the spit directly within the proposed breach area. A number of SSSI over-wintering birds also use the spit for roosting during high tide and/or feeding at low tide. The harbour itself supports the SSSI's over-wintering and breeding birds. We advise that the impact of the proposal on these populations needs to be fully considered and mitigated to meet the legal requirements for these species on the site.

- *Geomorphology feature*

The shingle spit system (including the ebb tidal delta) at Pagham is currently experiencing a set of processes which are thought to be unique to this location. The recent abundant supply of marine gravel and the consequential rapid extension and drift alignment of the spit in the past decade are anomalous within the context of similar systems elsewhere in Great Britain. These sediment supplies are episodic and it is not known for how long the current 'pulse' of sediment will continue.

Natural England welcomes that the proposal seeks to work with this dynamic coastline and enable it to evolve after this intervention. The geomorphological interest would nevertheless be altered by the proposal. These systems are complex and there will inevitably be uncertainty about the evolution of the spit after the breach as this will depend on future sediment supplies and wave action.

Pagham Harbour Marine Conservation Zone

The proposed works, as set out in the information provided, are sited within a Marine Conservation Zone (MCZ). The Pagham Harbour MCZ has been designated due to the presence of: intertidal seagrass habitat, Defolin's lagoon snail, and lagoon sand shrimp.

The current conditions of all the marine features are dependent on tidal influences, and the MCZ features are vulnerable to alterations to the current environmental regime. The general impacts of tidal change are recognised by the proposal and we agree the predicted small decrease in water levels would have insignificant impacts on the site features.

We advise that the main risk to the MCZ features would be the “risk” of closure of the harbour as a result of this proposal, and mitigation or evidence to ensure that the harbour is under a tidal influence needs to be confirmed.

The project proposes increased activity during construction, in close proximity to existing colonies of Defolin’s lagoon snail adjacent to the little lagoon and the proposed little tern habitat.

Natural England can assist in the development of mitigation and avoidance measures by providing information on the current best understanding of the location of the Defolin’s lagoon snail, derived from the surveys conducted in 2007 and 2013 and specialist knowledge of this species’ preferred habitat.

We advise that the MMO undertake a Stage 1 Marine Conservation Zone Assessment test of the potential impacts on the Pagham Harbour MCZ in accordance with their duties under the Marine and Coastal Access Act (MCAA) (2009).”

ENVIRONMENT AGENCY – No objection subject to conditions:

“A sustainable approach to shoreline management is a welcome ideal in principle. By its nature this is a complex application and whilst with regards to issues in our remit we do not object to the scheme, we do have some concerns regarding the future geomorphology of Pagham Harbour following the breach and how this might impact upon resident flora and fauna, due to a change in tidal levels and flow regimes. With this in mind we support the position of Natural England which reflects their statutory responsibilities.

Environment Agency Position

Having viewed the application details and supporting documents we have no objection to the proposed works as long as the following condition is observed.

Condition

Works must be undertaken outside of the bathing water season, which runs from 15 May to the end of September each year. This is in accordance with the method statement provided in the application (in table H2 of the appended WFD assessment). This will ensure that any sediment dispersal occurs outside of the bathing water season and will protect bathing water standards at Pagham Bathing Water.

Advice

We would expect that all works are undertaken following current best practice and with minimum impact on water quality. We would advise the applicant to adhere to the Environment Agency's Pollution Prevention Guidance (PPG) 5 for works in or near watercourses. In the event of a pollution incident, all works should cease immediately and the Environment Agency should be contacted via the incident hotline 0800 807060.

Justification

The proposed works are located within the Sussex WFD water body and in the vicinity of the Pagham Harbour WFD water body. They are also within 2km of the Pagham Bathing Water

Protected Area. We have assessed this proposal against the "no deterioration" requirements of the WFD, which included an assessment of the works' potential for impacts on the status of WFD quality elements, specific pollutants, priority substances and protected areas (e.g. Bathing Water Protected Areas). Our conclusion is that the works are unlikely to have a significant impact on the current status of the water body if they are undertaken in accordance with the above condition.

Biodiversity

We are happy to defer to the recommendations of Natural England regarding the working methodologies and access routes agreed that will ensure the protection of areas of vegetated shingle; and with regard timing of works to avoid disturbance to protected bird species. The relevant pollution prevention measures should also be in place for the entirety of works.

Flood Risk

After reviewing the documentation we are satisfied that whilst in some locations there may be a negligible change in flow speeds and water levels the proposal will not increase flood risk elsewhere.

Advice to Applicant

We would wish to advise the applicant in subsequent applications, such as securing funding from the Environment Agency, they will be required to complete a thorough options appraisal, explaining the planned benefits and outcomes of the project. Appraising alternative options is an important part of the process to enable an informed decision to be made. This must take into account the implications of alternative solutions on the different issues the Environment Agency have a responsibility for.

All applications for Flood and Coastal Erosion Grant in Aid are assessed by our National Project Assurance Service (NPAS) who provide advice to project teams and recommend projects to the EA board for approval. This is to ensure we get the most out of the money we invest in projects and programmes and to make sure that Government guidelines on options appraisal are followed correctly. The allocation of funding for schemes is prioritised and agreed nationally following set guidelines. The applicant has already been made aware of these steps."

HISTORIC ENGLAND – No objection subject to a condition:

"We provided advice on the heritage implications of the proposals to the Marine Management Organisation on 27 November 2015, and provide the following advice in conjunction with the comments provided to the MMO. We will also be providing comparable advice on this application to Chichester District Council.

Summary

We have reviewed the information provided to us with this application, regarding the managed breach of the shingle spit at Pagham Harbour, and note that the proposed development has the potential to cause harm to undesignated heritage assets, as although the initial breaching of the spit is unlikely to affect archaeological deposits, there are a range

of other potential effects that may negatively impact upon as yet unknown undesignated heritage assets. We understand, however, the importance of the scheme for protection of a significant number of properties and do not therefore object in principle to the scheme, but recommend that assessment of the significance of the historic environment and potential impacts upon it should take place. This work can be undertaken as a separate assessment to the EIA, with any investigation and mitigation secured by planning condition, and/or conditions placed on the MMO licencing. Recommendations for an appropriate condition are provided, but consultation should also take place with the Chichester Archaeological Officer.

Historic England Advice

Significance

Pagham Harbour was once part of a sea channel that separated Medmerry and Selsey from the mainland, and consequently the likelihood for discovery of boats, moorings, quays, platforms, fish traps and other riverside structures in the area, from prehistoric time onwards is likely to be significant. The previous historical and morphological characteristics of Pagham harbour would have been an important aspect in the siting of the Norman castle at Church Norton and the Roman tide mill at Sidlesham, and the identification of any associated landscape features or deposits relating to these sites, would be of considerable importance.

Recent archaeological fieldwork at Medmerry and the Manhood Peninsula, undertaken as part of the Medmerry re-alignment scheme, has identified a significant range of prehistoric and medieval archaeological features and deposits, and the area forming Pagham Harbour should therefore be seen as having increased archaeological potential in light of these discoveries. Pleistocene channels have also been recorded elsewhere off the coast of Selsey, and though these generally occur at some depth, they may be impacted by coastal change and scouring effects.

A scan of publicly available records indicates the position of a shipwreck in the general vicinity of the Pagham spit. Its exact location is not known as the information regarding its position has been sourced from documentary records, however there is potential for remains of this wreck, and other previously unidentified marine heritage assets, to be located within the development area.

Impact

The proposed development has four key areas of impact which can be defined as: breaching of the shingle spit, construction of a temporary access causeway, habitat creation, and secondary impacts such as increased water flow and scouring. The ES Table 5.2 'Environmental topics scoped out of the assessment' notes that archaeology was scoped out of the EIA because: "This project will not cause any significant changes to features of archaeological or cultural heritage value because the spit is recently formed morphological feature and the breach will be created in an area where the tidal inlet entrance was previously positioned (in 2003)."

We are in agreement that the spit itself is most certainly recent and the direct impact of the breach is going to initially be through recently deposited gravels to low tide level (-1.8m OD),

however, we note that once the breach has been completed it is expected to 'evolve' and deepen. It is not clear how much the breach is expected to deepen, however it is possible that as it does so, scouring may occur of more deeply stratified deposits.

Creation of the breach will change the morphology of the coast, potentially creating changes in water flow, scouring, and deposition patterns to the north of the spit within the channel and harbour. We would expect that some secondary effects may occur from scouring of reformed tidal creeks through the harbour, and that this could have a negative impact on any stratified archaeological or geo-archaeological deposits.

Creation of the temporary access causeway will entail the insertion of a driven sheet pile wall. Whilst this will be a temporary structure, its insertion has the potential to cause harm to any undesignated marine heritage assets (note the possible location of at least one shipwreck in this area), or to stratified deposits, dependant on its construction depth.

The ES also mentions the creation of a new island for Little Terns (as compensation for possible loss of habitat). This will be in the area of a concrete structure (EIA 11.2.2, p 249), which will be covered with shingle from the breach to protect the structure, and will be cut off from the spit by a channel, which will isolate the new island from predation. No information has been supplied indicating what the concrete structure is, but we note that concrete structures are often heritage assets linked to military defence of the coastline, particularly during WWII. Creation of a channel might also impact on harbour deposits of as yet uncertain archaeological potential.

Policy

The National Planning Policy Framework

All of the NPPF policies together constitute Government's view of what sustainable development means in practice, so development must meet all of the policies in order to be sustainable.

In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment, and where necessary, a field evaluation (para 128).

Para 129 states that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

It is also made clear in para 141 that Local planning authorities should make information

about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

Assessment

It is clear from reviewing the available data that the proposed development has the potential to cause harm to undesignated heritage assets, as although the initial breaching of the spit is unlikely to affect archaeological deposits, there are a range of other potential effects that may negatively impact upon as yet unknown undesignated heritage assets. We understand, however, the importance of the scheme for protection of a significant number of properties and do not therefore object in principle to the scheme, but recommend that assessment of the significance of the historic environment and potential impacts upon it should take place. This would ideally have formed a part of the EIA, however it would be possible to now undertake this work as a separate assessment, with any investigation and mitigation secured by planning condition, and/or conditions placed on the MMO licencing.

We think it essential that a desk based heritage assessment is produced in order to fully understand the heritage significance of the development area, including the deeper levels of the breach site, within the channel, and within the harbour area, and to identify the potential impacts of development on the heritage resource. The desk based exercise should examine available archaeological, geo-archaeological and marine geophysics data. Following this assessment, it is likely that further investigation will be required, and the details of such a program of work should be formulated in consultation with Historic England and the Chichester Archaeological Officer.

We think it would be beneficial for a small number of geo-archaeological boreholes to be drilled on the drier ground within the harbour area, to assess the nature of the harbour deposits and their likely archaeological potential. The channel area where the sheet pile wall will be situated may require exploratory fieldwork or survey to establish the presence or absence of marine heritage assets. The area designated for the Tern Island will need to be investigated to see if the concrete structure is of heritage significance, and the potential for discovery of deposits in the proposed channel area adjacent to the island, will also need to be established.

If heritage assets are identified that will be impacted by any aspect of the development, then mitigation will be required. This may extend to preservation by design, thus preserving heritage assets in situ, undertaking sampling, or systematically recording heritage assets, deposits, or artefacts affected by the development.

Historic England and the Chichester Archaeological Officer will need to be satisfied that adequate provision is being made for the investigation, recording and mitigation of any identified heritage assets within the development area, with a proposed program of work to include desk based assessment, field investigation and mitigation.

Recommendation

Because the proposed works have the potential to cause harm to heritage assets, Historic England recommends that planning consent could be granted for the scheme but that this should include conditions to secure a suitable program of investigation, recording and mitigation works for the historic environment.

We have provided a version of the following condition to the MMO, and recommend this condition could also be applied to any other permission that is granted in respect of this application:

[1] No development shall take place until the developer has secured the implementation of a program of archaeological investigation and mitigation (to include terrestrial archaeological, geo-archaeological, and marine field archaeological work as appropriate), undertaken in accordance with a Written Scheme of Investigation, which has been submitted to and approved in writing by the Local Planning Authority as advised by Historic England and the Chichester Archaeological Officer.

Reason: To ensure that the archaeological and historical interest of the development site is safeguarded and recorded, to comply with the National Planning Policy Framework"

RSPB – Comment as follows:

"Summary

The RSPB is acutely aware of the problems of coastal erosion being faced by the community at Pagham Beach, and is committed to working with all interested parties to identify a sustainable solution. We believe that such a solution is achievable whilst at the same time maintaining the local, national, European and international nature conservation importance of Pagham Harbour.

We have considered the current planning application carefully and in great detail, and have worked extensively with the applicants and their consultants. Whilst we believe that the application forms the basis of an acceptable solution, we are not entirely content that the accompanying Environmental Statement includes all the information, in the right form, to enable your Authority to make a decision, and in particular to carry out a full Habitats Regulations Assessment under the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations).

In recent discussions with the applicant's consultants we have been informed that they accept our analysis and that further information will be provided to your Authority to inform its Habitats Regulations Assessment. Accordingly, whilst we currently reserve our position pending the provision of that further information, we do so in the expectation that the outstanding issues will be resolved.

Response to the application by RSPB

A. Introduction

1. *Over the previous decade or so, the growth of the Church Norton spit across the mouth of Pagham Harbour has caused the inlet channel to cut into the Pagham Beach frontage, leading to major erosion of the beach in front of the houses in that location. This erosion is compounded during storm conditions, which can lead to the rapid removal of shingle from the frontage.*
2. *The RSPB recognises that the existing situation is of great concern to residents at Pagham Beach, and has provided input to the evolving process of seeking a sustainable solution to the problem. We have access to an extensive database of bird and other wildlife records relating to Pagham Harbour, which has been shared with the Applicant's agents to help inform the preparation of an Environmental Statement.*

B. Background

3. *Pagham Harbour is a site of local, national, European and international importance for wildlife. It is designated as a Local Nature Reserve, a Site of Special Scientific Interest, a Marine Conservation Zone, a Special Protection Area, and a Wetland of International Importance under the Ramsar Convention.*
4. *The SPA interests are breeding little and common terns and non-breeding dark-bellied Brent geese, black-tailed godwits and ruffs (although the last species has not occurred in significant numbers at the site for many years). In addition, the UK SPA Review (The UK SPA Network – Its Scope and Content JNCC, 2001) includes non-breeding pintails as a qualifying feature.*
5. *The Ramsar site's avian interests are non-breeding dark-bellied Brent geese and black-tailed godwits.*
6. *In addition, the site supports breeding ringed plovers and oystercatchers, and an assemblage of non-breeding waterbirds including dunlins, grey plovers, redshanks and curlews.*
7. *In June 2014, Natural England published updated site conservation objectives for the SPA/Ramsar site:*

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the "qualifying Features") listed below and subject to natural change:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- *The extent and distribution of the habitats of the qualifying species*
- *The structure and function of the habitats of the qualifying features*
- *The supporting processes on which the habitats of the qualifying species rely*

- *The population of each of the qualifying features, and*
- *The distribution of the qualifying features within the site*

These highlight, among other things, the requirement to maintain and, where necessary, restore the qualifying features of the SPA/Ramsar site and the structure and functions of the habitats that support them.

8. *Since 1 February 2012 the RSPB has entered into a series of leases with other NGOs, public bodies and private landowners, and is currently the occupier of the land hatched blue on the attached plan. We manage some other areas of the Local Nature Reserve as agents for West Sussex County Council under the terms of a Service Level Agreement where they are the tenants of the land. We also provide a wardening service on some further areas where LNR agreements are in place with the owners and occupiers of the land.*

B. Outline of RSPB response

9. *The issue of primary biodiversity concern to the RSPB is the impact of the proposals upon breeding little terns, an SPA interest feature, both during the construction phase and during the post-construction “operation” of the new breach. This is discussed in more detail below.*
10. *Other biodiversity issues that are addressed below are:*
 - *Disturbance to other breeding birds during construction*
 - *Loss of or changes to habitat of other breeding birds post-construction*
 - *Disturbance to non-breeding birds during construction*
 - *Loss of or changes to habitat of non-breeding birds post-construction*
 - *Other impacts on biodiversity, including Defolin’s lagoon snail (an MCZ feature)*
11. *We also set out our recommended approach to the decision making process with regard to the application, with particular reference to the requirements of the Conservation of Habitats and Species Regulations 2010 (“the Habitats Regulations”) and the role of mitigation and compensation in that context.*

C. Impact of the proposals upon breeding little terns

12. *The SPA site is designated for its breeding population of little terns, one of the rarest breeding terns. It was first designated in 1988 when the population was 15 pairs. The SPA Standard Data Form gives an average population of 7 pairs for the period 1992-1996, while the UK SPA Review site account states that the population reached 12 pairs in 1995.*
13. *Since then, numbers of breeding little terns at Pagham Harbour have varied widely from year to year. None bred between 1996 and 2006 inclusive, since when between three and 18 pairs have bred. The great majority of these have bred on the Church Norton shingle spit, in the early years in the vicinity of the proposed managed breach. Following*

the growth of the spit after 2002 the preferred breeding location moved to the north east, apparently as a result of the availability of recently accreted, bare shingle.

- 14. In 2015 18 pairs bred, fledging 16 young. This high rate of productivity is believed to have been greatly assisted by the provision of temporary fencing around the breeding location and a programme of intensive wardening, thereby reducing disturbance by people, particularly those with dogs, and the effects of terrestrial predators.*
- 15. The implementation of the proposals will involve significant, albeit localised and time-limited, disturbance to the whole of the spit, which if carried out during the breeding season would be likely to have a major adverse impact upon the ability of little terns to breed successfully. It is imperative therefore that no implementation works take place during the period between April and August. See section I below concerning mitigation and compensation.*
- 16. The excavation of an area of shingle to create the breach will result in the permanent loss of approximately 0.25 ha of potential breeding habitat. However, little terns have not bred in this specific location in recent years and it is therefore considered unlikely that this will have an adverse impact upon breeding success.*
- 17. Of greater concern is the predicted loss, over a period of approximately 10 years, of the severed shingle spit following the excavation of the breach. Initially this will remain suitable for breeding, but is likely to be subject to higher levels of disturbance due to increased ease of public access from the Pagham end of the spit. With the predicted gradual erosion of the severed spit and the movement of this material north eastwards onto Pagham Beach, this area will become increasingly unsuitable for breeding terns and will eventually cease to be available. As the Environmental Statement acknowledges in section 8.2.8.1 and 11.2.2, this would represent an adverse effect on the integrity of the SPA that cannot be avoided. See section I below concerning the decision-making process and the role of mitigation and compensation.*

D. Disturbance to other breeding birds during construction

- 18. In addition to little terns, breeding common terns are a designated feature of the SPA. This species breeds on the existing tern island inside the Harbour and not on the Church Norton spit. However, the exclusion of construction during the period between April and August (see paragraph C.13 above) will avoid any possibility of disturbance to breeding common terns or other species (such as ringed plovers).*

E. Loss of or changes to habitat of other breeding birds post-construction

- 19. As noted in paragraph C.15 above, the predicted erosion and eventual loss of the severed spit over a period of approximately 10 years will result in the removal of habitat currently used by nesting little terns. This is unlikely to affect the other SPA breeding bird interest, namely common terns.*

20. *Two other bird species nest on the spit in most years, namely oystercatcher (an Amber species of Conservation concern) and ringed plover (recently added to the Red list of species of conservation concern), but it is unlikely that the presence or otherwise of a shingle feature in this location is a limiting factor on the populations of these species either locally or at a larger scale.*

F. Disturbance to over-wintering or passage birds during construction

21. *Aside from ruffs, which no longer occur at Pagham Harbour in significant numbers, two over-wintering and passage species are SPA interest features: dark-bellied Brent geese and black-tailed godwits. In addition a number of other waterfowl make use of the harbour for feeding and/or roosting during the winter period, for example grey plovers and dunlins (both Amber species of conservation concern).*
22. *The construction phase will involve movements of plant, human access and sheet pile driving during a period of 9 -11 weeks at the beginning or end of the over-wintering period (probably in September – November 2016 or January – March 2017).*
23. *It is highly likely that these operations will lead to displacement of birds from the vicinity of the activity. The area over which this effect will be manifested is uncertain but monitoring of disturbance by machinery at a development in Saltend concluded that it is likely to be restricted to a 50 metre zone in each direction from the boundary of the activity (Saltend Development Cumulative Impact Study, Institute of Estuarine and Coastal Studies, 1997). On this basis approximately 3% of the area of the SPA would be affected.*
24. *In view of the relatively small proportion of the SPA affected and the limited duration of the works we consider the impact on over-wintering and passage birds to be short-term and low.*
25. *However, we would welcome further discussion with the Applicant's consultants to refine the construction period by identifying the least sensitive time during the suggested construction periods for the SPA/Ramsar site features during which the work could be carried out, so that these could be set out in an appropriate planning condition.*

G. Loss of or changes to habitat of over-wintering or passage birds post construction

26. *Three changes may conceivably affect over-wintering or passage birds post construction:*
- *changes in water levels within the harbour,*
 - *changes in the sedimentation regime, and*
 - *the probable creation of a temporary saline lagoon to the north-east of the breach.*
27. *The ES predicts that there will be two minor changes in the water level regime within the harbour, a short-term small reduction in spring and neap high water levels across the harbour in the period immediately after the breach is implemented, and a longer-term*

reduction in spring and neap low water levels, especially the former, as a result of more efficient drainage due to the inlet channel being much shorter. We consider it to be unlikely that either of these minor changes will have a significant impact on feeding or roosting waterbirds.

28. *No significant changes to the sedimentation regime are anticipated. The RSPB accepts this conclusion.*
29. *It is likely that in the short term the distal end of the severed spit will re-connect with Pagham Beach, resulting in a saline lagoon forming behind it for a period of approximately 10 years until the spit erodes away. This may have a small temporary beneficial effect, for example by providing sheltered feeding opportunities for birds, including tern species. However, as the spit erodes over time, this temporary saline lagoon will not persist.*

H. Other impacts on biodiversity, including Defolin's lagoon snail (a MCZ feature)

30. *There appears to be no conclusive evidence that there is an extant population of Defolin's lagoon snail on the Church Norton spit (although specimens were found there in 2007), and based on surveys at the Fleet (Dorset) in 2012 and Pagham in 2009 and 2013 more sheltered saline water bodies appear to be its preferred habitat. If this is the case then it is unlikely that the construction of the breach will have an adverse impact on the species, or that there will be any significant impacts post construction. However we recommend that sampling should be carried out in the proposed breach area in March 2016 to provide a clear understanding of whether or not the species is present, and that any subsequent advice from Natural England is acted upon.*
31. *We do not consider there to be any identified significant impacts on any other non-avian species.*

I. The legal and policy framework and implications for the decision making process

32. *The Pagham to East Head Coastal Defence Strategy (Environment Agency, 2009) adopts a policy of Adaptive Management for the Pagham Beach and Pagham Harbour mouth frontage. Adaptive Management is defined as "Managing complex coastal areas by monitoring changes and acting on them in a planned but flexible way, increasing our understanding over time".*
33. *Pagham Harbour is a classified Special Protection Area under the EU Birds Directive (Directive 2009/147/EC on the conservation of wild birds) and the application site lies within and on the boundary of the SPA. Accordingly regulation 61 of the Conservation of Habitats and Species Regulations 2010 ("the Habitats Regulations") applies.*
34. *Paragraph 118 of the National Planning Policy Framework extends the requirements of regulation 61 (and subsequent regulations) to, inter alia, listed or proposed Ramsar sites and any site identified as being necessary to compensate for adverse impacts on European or Ramsar sites. Pagham Harbour is a listed Ramsar site. The application site*

is approximately 4 km from the Medmerry Managed Realignment site, which provides compensatory habitat for impacts on European sites elsewhere in the wider Solent. The RSPB does not consider that the implementation of the proposal at Pagham Harbour would have any impact upon the Medmerry site.

35. *For convenience the steps set out in the Habitats Regulations that it is necessary to consider are set out here:*
- i. Step 1: Under regulation 61(1) (b), consider whether the project is directly connected with or necessary to the management of the European site. If not –*
 - ii. Step 2: Under regulation 61(1) (a) consider, on a precautionary basis, whether the project is likely to have a significant effect on the European site, either alone or in combination with other plans or projects.*
 - iii. Step 3: Under regulation 61(1), make an appropriate assessment of the implications for the European site in view of its conservation objectives. Regulation 61(2) empowers the competent authority to require the applicant to provide information for the purposes of the appropriate assessment. There is no requirement or ability at this stage to consider extraneous (non-conservation e.g. economics, renewable targets, public safety etc) matters in the appropriate assessment.*
 - iv. Step 4: Pursuant to regulation 61(5) and (6), consider whether it can be ascertained that the project will, alone or in combination with other plans or projects, adversely affect the integrity of the European site, having regard to the manner in which it is proposed to be carried out, and any conditions or restrictions subject to which the authorisation might be given.*
 - v. Step 5: In light of the conclusions of the assessment and in accordance with regulation 61(5) and (6), the competent authority shall agree to the project only after having ascertained that it will not adversely affect the integrity of the European site, alone or in combination with other plans or projects.*
 - vi. Step 6: In accordance with regulation 62, a competent authority may only derogate from regulation 61 where there is an absence of alternative solutions and it is satisfied that there are imperative reasons of public interest to override the protection of the European site and, in accordance with regulation 62, that the necessary compensatory measures have been secured that protect the overall coherence of the Natura 2000 network.*

Implications for the decision-making process: alternative solutions and imperative reasons of overriding public interest

36. *Section 2 of the ES sets out the case for Project Need and Alternatives. It also includes sections setting out the Applicant's consideration of alternative solutions and imperative reasons of overriding public interest in relation to regulation 62 of the Habitats Regulations.*
37. *The RSPB considers this section needs further work in order to ensure the Councils, as the competent authorities, are able to complete their Habitats Regulations Assessment. At present the ES does not set out all the necessary information required by the Councils.*

38. *We recommend the following changes be made to ensure that the text is fully addressing the tests on alternative solutions and imperative reasons of overriding public interest:*

- *In section 2.1.3 (Proposed Community Project and its Objectives) distinguish clearly between those objectives that are genuine public interest objectives (and therefore relevant to the alternative solutions and IROPI tests) and those that are project-level objectives only. For example, the RSPB would consider that the public interest objectives could include those relating to public safety e.g. achievement of larger and longer-term coastal defence benefits, whereas those relating to the site's amenity value are not. Public interest objectives might also include the need to avoid the risk of further and uncontrolled damage to the SPA/Ramsar site through unmanaged breaches. Please note that relative costs of different options are not relevant at the alternative solutions stage.*
- *In section 2.2 (Alternatives) include a section that specifically addresses the alternative solutions test (as opposed to alternatives in their ES sense). This section should compare the possible alternative solutions to meet the stated public interest objectives and set out how the proposed solution will be the least damaging (or at worst cause equivalent damage) to the SPA/Ramsar features of the various alternative solutions identified that could meet the public interest objectives. At present, the information provided alludes to this, but does not yet provide a clear description that would enable the Councils to conclude that there is no alternative solution to the proposal. This may require an additional table to Table 2.1 that addresses only the alternative solutions issue.*
- *Include a new sub-section that summarises the justification for imperative reasons of overriding public interest in light of the amended sections described above.*

39. *Once these are revised, the RSPB would be happy to update its comments on this key section.*

Implications for the decision-making process: compensatory measures

40. *The RSPB agrees with the statement (section 2.2.1.3) in the Environmental Statement supporting the application that, having regard to the fact that the proposal will lead to a significant change in the physical functioning of the SPA/Ramsar site, and have implications for SPA interest features, that it has a Likely Significant Effect and that accordingly an Appropriate Assessment is required.*
41. *The RSPB further agrees with the ES that the predicted impacts on the SPA breeding little tern feature cannot be mitigated and comprise an adverse effect on the integrity of the SPA.*
42. *The application incorporates the creation of a new shingle island within the harbour, formed by the deposit of material upon an existing concrete revetment, to create a new breeding habitat for little terns. The ES incorrectly describes this as mitigation (e.g. page 16 of the Non-Technical Summary), but later correctly describes it as compensation (ES section 11.2.2, page 249). It should correctly be considered as a compensatory measure.*

As determined by the European Court of Justice judgement in the Briels case (Case C-521/12 Briels v Minister van Infrastructuur en Milieu 2014), where the predicted adverse effect cannot be avoided, the provision of alternative habitat for the impacted feature elsewhere within the boundary of the SPA should be regarded as compensation. It is predicted that the habitat supporting breeding little terns will be lost as a consequence of the proposed development and therefore it must comprise an adverse effect on the SPA that cannot be avoided.

- 43. The RSPB considers that, if appropriately designed and subject to ongoing management, notably vegetation control and anti-predator fencing, the support of appropriate wardening, and clarification of who is legally responsible for the compensatory measures, the proposed creation of a new shingle island within the harbour would be likely to provide suitable habitat to replace that which would be lost as the existing spit gradually erodes. The precise design of the island and the means of implementing its creation would need to be agreed with Natural England and the RSPB, and any consent should be conditioned accordingly.*
- 44. In line with UK and EC guidance on compensatory measures, the new habitat should be provided in advance of the predicted adverse effect. The RSPB would welcome working with the Applicant and their consultants, the Councils and Natural England on an appropriate planning condition and associated agreement setting out the aims and objectives of the compensatory measures, along with the proposed construction methods and timetable in relation to the predicted impacts, appropriate management and monitoring measures.*

J. Summary and Conclusion

- 45. The application raises a number of issues and concerns with regard to impacts upon biodiversity, in particular the bird species that are SPA/Ramsar features.*
- 46. The RSPB's principal area of concern is in relation to the population of breeding little terns, whose existing breeding site is likely to gradually erode and ultimately disappear over a period of about a decade if the proposal is implemented.*
- 47. The RSPB considers that the proposed works would have a Likely Significant Effect on the SPA/Ramsar site and that it is necessary for the Competent Authorities to undertake an Appropriate Assessment.*
- 48. The RSPB agrees with the Applicant that the predicted impacts on the habitat of breeding little terns mean that an adverse effect on the integrity of the SPA cannot be avoided. Therefore it is necessary for the Councils to consider the tests of alternative solutions and imperative reasons of overriding public interest (regulation 62) and compensatory measures (regulation 66).*
- 49. The RSPB considers that the information provided on alternative solutions and imperative reasons of overriding public interest needs revision in order to ensure that the Councils, as Competent Authorities, are able to complete their Habitats Regulations*

Assessment. The RSPB has set out suggested changes needed to the relevant sections of the ES in order to ensure the Councils have the necessary information to address regulation 62. Once these are revised, the RSPB would be happy to update its comments on this key section.

- 50. The Applicant has proposed the creation of a new shingle island within the harbour as a compensatory measure to provide suitable habitat for breeding little terns. The RSPB considers that if appropriately designed and subject to ongoing management, notably vegetation control and anti-predator fencing, the proposed compensatory measures would be likely to provide suitable habitat to replace that which will be lost as the existing spit gradually erodes.*
- 51. The RSPB would welcome working with the Applicant and their consultants, the Councils and Natural England on an appropriate planning condition setting out the aims and objectives of the compensatory measures, along with the proposed construction methods and timetable in relation to the predicted impacts, appropriate management and monitoring measures.*
- 52. The RSPB recognises the seriousness of the erosion problems at Pagham Beach and the need to secure a sustainable solution to these problems. The RSPB is committed to working with the Applicant and other interested parties to resolve the concerns set out above and to come to a satisfactory conclusion."*

WEST SUSSEX COUNTY COUNCIL HIGHWAYS – Comment as follows:

"West Sussex County Council, in its capacity as the local highway authority, has been consulted on the proposed managed breach at Pagham Harbour. No objection is raised to the principle of the works, as there will be no long-term impact on the operation of the local highway network and the works occur remote from the highway. However, limited information has been provided in respect of site access.

It is understood that the car park at Pagham will be used as a site compound, that both plant and contractors will access the site by road using Rectory Lane and that the works are due to last approximately 9-11 weeks. However, limited information has been provided on how plant will be transported to the site, the frequency and type of vehicles to be used and whether any temporary mitigation will be required to facilitate access.

It is expected that vehicles will travel south along the B2145 before turning onto Rectory Lane. This junction provides access for articulated vehicles entering the Nature's Way site which is located in close proximity to the junction. Therefore, movements of HGVs can be accommodated through this junction. However, Rectory Lane itself is a narrow single lane track with limited passing opportunity. Any vehicles, and in particular HGVs, that may meet another vehicle travelling in an opposing direction would not be able to pass one another.

Further information is requested as to how the use of Rectory Lane will be managed through the works period. While the preference of the highway authority would be for this information to be submitted prior to determination, should the planning authority be minded

to permit the development, it is recommended that a Management Plan is secured by condition to be resolved prior to commencement. Draft wording is provided below.

Access Management Plan

No development shall take place, including any works of demolition, until an Access Management Plan has been submitted to and approved in writing by the Local Planning Authority. Thereafter the approved Plan shall be implemented and adhered to throughout the entire works period. The Plan shall provide details as appropriate but not necessarily be restricted to the following matters,

- * the anticipated number, frequency and types of vehicles used during construction,*
- * the method of access and routing of vehicles during construction,*
- * the use and management of Rectory Lane*
- * the parking of vehicles by site operatives and visitors,*
- * the loading and unloading of plant, materials and waste,*
- * the storage of plant and materials used in construction of the development,*
- * the erection and maintenance of security hoarding,*
- * the provision of wheel washing facilities and other works required to mitigate the impact of construction upon the public highway (including the provision of temporary Traffic Regulation Orders),*

Reason: In the interests of highway safety and the amenities of the area“

CHICHESTER DC ECOLOGY – Comment as follows:

“The Environment Strategy team have a number of concerns and comments on the Environmental Statement, particularly regarding uncertainties and examination of alternatives. These have implications for the Habitats Regulations Assessment (HRA) above and beyond the Requirements of the EIA Regulations.

The Environmental Statement (ES) has stated that there is a great deal of uncertainty within certain aspects of the proposals (Parag 8.2.8.2). As just one example with regards to Little Terns it has stated that there is 'a high likelihood of habitat change occurring for little terns', and the confidence in predicting future usage of the area by the bird is low. This low confidence raises concerns about whether the information provided for the purposes of EIA meets the criteria of providing "complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubts as to the effects of the works proposed on the protected site" that the recent 'Sweetman' judgement of the ECJ set down for Appropriate Assessment stage of HRA. The loss of habitat at the far end of the spit rolls back to Pagham Beach over 10 years or so and the increased accessibility of this area are the primary cause for concern from a biodiversity point of view in this application.

Furthermore the uncertainty that the breach will stay open raises uncertainty about the effects not just on the little tern habitat but also on the assessment for all the intertidal habitats within the Harbour on which the overwintering species depend. This in turn makes it difficult for the competent authorities to conclude at the appropriate assessment stage that there will not be an adverse impact. The council should pay due regard to Natural

England's advice but the ES describes the impact on the terns as "up to moderate" before compensatory measures. From this alone the risk of granting permission under Article 6(3) ought to be evident. It is highly likely that a derogation test under Article 6(4) will be required.

Of the three tests required to be met in order to use the derogation procedure, the information submitted may well be sufficient to meet the test of Imperative Overriding Public Interest, mainly because that test is a balance of the economic and social impacts of the risk of homes being lost against the environmental damage. However, the potentially short term natures of the scheme advantages are problematic in meeting this test.

The advice of Natural England on the suitability of the compensatory measures will be of critical importance to passing that test as the Secretary of State is legally responsible for securing those measures in the case of a derogation test.

That leaves the issue of meeting the test of 'no alternatives'. The ES briefly examines the alternatives but very much from the point of view of the EIA regulations requirements rather than the more in-depth approach required for the Habitats Regulations Assessment. The project objectives are multiple and self-set, but the Defra Guidance (2012) makes it clear that for a Habitats Regulations test the objectives ought to be set at a more fundamental level. The guidance uses the example of the expansion of Southampton port. The project objectives there may well have included 'expansion of the port of Southampton'; however the derogation test looked at the underlying aim of "how can port capacity in the south of England be expanded?" We would suggest that then underlying aim of the scheme here is 'how can homes in Pagham be protected from damage?' Objectives set around concerns about the appearance and amenity value of alternative measures would not be appropriate for a habitats regulations test that is concerned primarily with minimising the impacts on wildlife.

In our view there are alternatives that would defend the homes and be less damaging to the designated species of the SPA, particularly given the loss of little tern habitat and the increased access afforded to much of the remaining habitat on the former spit from the settlement of Pagham.

Direct intervention on Pagham beach may have drawbacks from a local amenity and appearance point of view but this should not form part of a HRA judgement. The short term nature of such alternatives should be compared to the uncertainty of an artificial breach closing up in a storm and to the possibility of a breach naturally occurring in time. Should the applicant wish to provide a fuller assessment of alternatives this would undoubtedly assist in the decision-making process. At this stage the competent authorities should also consider making a joint request for an opinion to the European Commission under Regulation 62(3) on the likelihood of meeting the derogation tests as this would reduce the risk of judicial review or other legal challenge at a later stage in the process."

ADC PLANNING POLICY – Comment:

“Having looked over the environmental statement that has been submitted I have the following comments, which are all linked to compliance with the Conservation of Habitats and Species Regulations 2010. Although the Environmental Statement is correct that though a proportion of the information that it contains can be used to inform further documents that are required, further documents are required for the reasons set out below.

Interpretation

My understanding in terms of interpretation of the Regulations is that parts 61-66 apply in all circumstances; part 68 to granting of planning permissions and parts 102-105 in terms of land use planning. The wording within each of these varies slightly but overall is the same with regard the following words used within these:

Competent authority/Appropriate authority – the determining LPA (ADC);

A plan-making authority – in terms of land use plans is ADC; in terms of NPs are the groups and in terms of planning applications is the applicant; and

Appropriate authority – in terms of land use plans this is NE; in terms of NPs and applications is ADC.

On this basis it is my view that this has to be provided by the applicant or agent acting on their behalf.

Habitats Regulations process

Though including technical information on a number of points, the content of the submitted Environmental Statement does not fulfil the requirements of the Habitat Regulations processes, in line with the two relevant European Directives (Habitats Directive 92/43/EEC and Wild Birds Directive – most recent publication including amendments 2009/147/EC). There are 3 elements to this process – Screening, Appropriate Assessment and Compensation. These should be applied to all plans or proposals that are not linked to the management of a site. Due to the fact that the relevant directives enshrine the precautionary principle, only once there is scientific certainty that there will be no likely significant effects either alone or in-combination, is there no need to progress to the next stage.

A screening report would be required to identify all designated European sites within a reasonable distance and critically identify the qualifying features linked to the designation and the conservation objectives set out for them. It must set out key areas/topics to be investigated established from the qualifying features and conservation objectives; the methodology, identify vulnerabilities and discuss the potential impacts and why they do not need to progress further or where no effect can be discounted. Considering the content of the current ES this has not been done.

An Appropriate Assessment is so named because it is recognised that the approach should be proportionate to the possible effects and especially as this stage includes consideration of appropriate mitigation to reduce or prevent effects. This should progress the information from the previous stage so that it goes into the detail of the source and pathways by which effects would occur and then how these might worsen or improve. Naturally this progresses to discussion of possible actions that could be taken as mitigation to prevent effects but

imperatively must include a discussion of various alternatives and the likely significant impacts of each against the nature conservation objectives of the site and the qualifying features by which it was designated. If mitigation can be achieved with scientific certainty (for the purpose of the application, prior to works) or the proposal cannot conclusively be considered to be the least harmful alternative to the nature conservation objectives, then there is no need to progress to the next stage.

The current documents do not test against the conservation objectives and in no part discuss the qualifying features of the designated site or go into detail over mitigation beyond suggested conditions that there would be no objection to being applied.

However if mitigation cannot be achieved with scientific certainty or it is not considered conclusively to be the least harmful alternative regarding the nature conservation objectives then it must be considered against the tests of Imperative Reasons of Overriding Public Interest (IROPI) and whether compensation can be achieved. In general terms if a competent/responsible authority were to consider something against the IROPI tests then this very broadly would be in terms of human health or public safety and the benefit has to be well beyond individual probably with a significantly wider social element than the immediate ones affected.

Against these there is no information. Further, the limited element that is to address possible negative impacts does not provide sufficient detail to give the scientific certainty over the achievement of compensation (I have attached a guidance note from 2012 on both these aspects specifically that may be useful).

As it is my feeling that though as mentioned at the beginning parts of the information within the Environmental Statement could be used to inform any work to be compliant with these, there is a significant deficiency in terms of providing ADC as the competent authority with sufficient information to be confident that either and/or both of the later stages have been met. Without this we cannot comply with parts 61 and 62 of the Conservation of Habitats and Species 2010."

ADC ENVIRONMENTAL HEALTH – No comments:

"I confirm that EH have no comments to make with regard to this application".

ADC DRAINAGE ENGINEERS – No formal comments received at this time.

CONSULTATION ON THE AMENDED INFORMATION RECEIVED MAY 2016:

NATURAL ENGLAND – No objection subject to conditions:

"Following your initial request for further information from the applicant, Natural England provided a package of helpful advice to help address any environmental impacts of the proposal. We welcome the further information that has been submitted and the mitigation measures that have been proposed.

Pagham Harbour SPA/Ramsar - Appropriate Assessment

We advise that we consider that sufficient information is contained in the application for the Local Authorities to carry out their Appropriate Assessment (AA) as the next step in the planning process.

Pagham Harbour Site of Special Scientific Interest – Impact Assessment

We advise that we consider there is sufficient information for the assessment for the SSSI.

As you are aware, since we offered our advice to the applicant on the possible mitigation measures for impacts on the geomorphological SSSI interest, the site has continued to undergo a period of rapid evolution. However, we advise that our advice remains unchanged. We welcome the key principle in the further information submitted by the applicant that the managed breach should be allowed to evolve naturally.

Planning conditions

Should planning permission be granted, we advise that conditions should be applied and agreed with the applicant as identified in the application – Natural England can advise further at that stage.”

Natural England also provided additional specific guidance in respect of the impacts and potential mitigation measures for the SPA and one for the SSSI/MCZ. These comments are set out below:

SPA/RAMSAR –

“The information below is intended to assist in the assessment of impacts and the identification of possible mitigation measures for the SPA/Ramsar site.

It should be noted that some mitigation measures may address impacts common to several designated features.

1. Further information required for the Appropriate Assessment (AA) with regard to the SPA and Ramsar site

1.1 The joint local authorities’/MMO letter of 7th March stated that an Appropriate Assessment is required to address the impacts of the proposal on the Pagham Harbour SPA/Ramsar site. Our advice provides information to inform the three main issues. These are:

I. Impacts to the little tern population - through loss of breeding habitat and the potential increase risk of disturbance and predation (see 1.7 below).

II. Impacts to SPA/Ramsar bird populations due to changes in supportive habitat within the harbour through the risk of harbour closure (see 1.8 below).

III. The impacts of construction on bird SPA/Ramsar bird population – via disturbance and changes to supportive habitat (see 1.9 below).

1.2 To help inform the assessment of these impacts, the information below provides details of the SPA conservation objectives, and advice on each of these three issues.

SPA conservation objectives and Ramsar information

1.3 Pagham Harbour SPA – conservation objectives and the citation can be found at this link: <http://publications.naturalengland.org.uk/publication/6147434560356352?category=6528471664689152>

1.4 As part of the package of advice (item B), we are providing the preliminary draft of Pagham Harbour SPA conservation advice which has been prepared for use in assessment of plans or projects that may impact on this site.

1.5 Pagham Harbour Ramsar – information sheet for the Ramsar: <http://jncc.defra.gov.uk/pdf/RIS/UK11052.pdf>

1.6 In addition, below is a link to the 'The Habitats and Wild Birds Directives in England and its seas: Core guidance for developers, regulators & land/marine managers': https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82706/habitats-simplify-guide-draft-20121211.pdf

1.7 Impacts to the little tern population - through loss of breeding habitat and the potential increase risk of disturbance and predation

1.7.1 The measure put forward as part of the application, to compensate for the impact on the little tern habitat and breeding population, is a proposed habitat island on the Church Norton side of the harbour. The RSPB has provided advice on the proposed little tern habitat, and we have provided further comments on this to help inform the requirements of the compensation habitat, as item E.

1.7.2 Regarding the increased risk of disturbance and predation, we advise that the necessary mitigation will be likely to include both wardening and predation measures to cover the distal end of the spit. These measures will be necessary once the distal end is joined to the Pagham frontage by the shingle bund, making it more accessible but whilst it still remains suitable habitat for nesting terns.

1.7.3 At the meeting on 11th February the RSPB offered to assist with these mitigation measures. We advise that this should cover:

i. Ensuring there will be effective wardening of the site throughout the nesting period to prevent people and dogs disturbing nesting little terns. This should be in place for as long as it remains a viable nesting habitat for little terns.

ii. Fencing and signage in the nesting season to prevent access by people to the spit via the shingle bund which is to be constructed, and the distal end of the spit as it joins the Pagham frontage.

iii. Fencing for fox control in the nesting season and potentially other predation controls (rats, etc.) as required to prevent predation on little terns on the distal end of the spit.

iv. Monitoring of the effectiveness of these measures.

1.1 Impacts to SPA/Ramsar bird populations due to changes in supportive habitat within the harbour through the risk of harbour closure

i. With regard to harbour closure, plans should offer sufficient certainty that the breach will remain open or that sufficient mitigation measures are in place to re-open the breach.

ii. We recognise that the ES states (p121) that 'it is not proposed or advised that there is a regular campaign of maintained work at this site.' We agree that there shouldn't be a requirement for regular dredging as the proposed breach is being designed to be relatively self-sustaining and because regular maintenance dredging has the potential for further impacts on the site. However, given the risks to the site of the breach closing as a direct result of this intervention, we advise the AA should consider the potential need for the breach to be opened more than once, i.e. beyond the once-only offer in the ES. The contingency measures should be planned over such time as there is a possibility of closure as a result of intervention.

[...]

1.9 The impacts of construction on bird SPA/Ramsar bird population (including little tern population) – via disturbance and changes to supportive habitat during construction

1.9.1 Disturbance from construction on breeding and overwintering SPA/Ramsar populations:

i. The disturbance impact from construction can be significantly reduced if construction begins immediately after the little terns have left the site and prior to the arrival of the majority of the over-wintering birds. Ideally this is when the construction should be undertaken – an ecological watching brief can confirm that all little terns chicks have fledged before works proceed to provide certainty that the breeding season is over.

ii. To avoid significant impacts on the SPA/Ramsar birds it needs to be confirmed (as stated in the ES) that construction will occur outside of the little tern breeding season. The use of on-site monitoring, or confirmation by the RSPB should be used to indicate that the breeding season is complete.

1.9.2 Disturbance of the SPA/Ramsar wintering waterbird features during construction of the proposal should be further considered in the AA:

A Construction Schedule and/or Construction Management Plan would be a good way to address these issues with an ecological clerk of works to ensure their implementation. We advise consideration of the following:

i. The 50m zone appears to be based only on the potential impacts of plant/machinery movements.

ii. Evidence cited in the ES suggests there is the potential for disturbance from people at a distance up to 300m. A construction plan will help to deal with this disturbance if it incorporates the following measures:

- Minimising the number of personnel on site and the degree to which people enter and exit vehicles, particularly in sensitive areas. Further measures could include providing information to personnel working on the site regarding the sensitivities, and undertaking a watching brief.

- The impact within the disturbance zone may also be lessened if activities are undertaken earlier in the over-wintering period, when the number of over-wintering birds is lower and there are potentially other areas for the birds to use.

- An ecological watching brief should be incorporated into the plan to monitor activities.

iii. WeBS data (low tide and core counts, as provided in the assessment) can be used to assess impacts on the individual species in these exclusion zones, i.e. the species and the numbers that are likely to use the potential disturbance zone and the significance.

SSSI/MCZ –

“2.1 With regard to the interest features of the SSSI and MCZ sites, further information is required on the potential impacts, and we have provided advice and a number of mitigation measures in the following sections.

2.2 SSSI interest - Vegetated Shingle

2.2.1 The Environmental Statement (ES) identifies the direct loss of perennial (sea kale) vegetated shingle. This area is characteristic and typical of early pioneer vegetated shingle, with its sparse vegetation reflecting the way in which shingle is colonised. It is proposed to offset this loss through creating a new area of habitat where the excavated material is placed across the existing tidal channel. Detail on the construction method would help to increase confidence in the success of the proposals.

2.2.2 The main mitigation for vegetated shingle comes from the potential for vegetated shingle habitat to become established on Pagham beach, through the sea reworking the shingle. Methods to protect this establishing habitat from trampling/disturbance and invasive species, should be considered e.g. working with the community/signage etc.

2.2.3 A construction plan should be provided to ensure protection of the surface geomorphology shingle ridges and the associated vegetated shingle. This should detail the type and number of vehicles on site and the routes to be taken by these vehicles and personnel to access the site, as well as storage and construction locations. Vehicles should

stick to existing paths/tracks and particularly on the spit travelling below the mean high water line where any disturbance to shingle would be re-distributed at next tide, and no vegetated shingle is present. Generally vehicles should try and to keep off the shingle as much as possible, including the newly formed ridges where the annual vegetation will establish, and areas with existing vegetation.

2.2.4 A map of the proposed routes, storage sites or other areas should be provided and personnel working on the site should be briefed regarding the sensitivities.

2.3 SSSI breeding birds

2.3.1 Of the SSSI breeding bird assemblage there are two species - oystercatcher and ringed plover - whose entire populations at Pagham Harbour appear to nest almost exclusively within the breach area (information is given at the end of this section on the breeding habitats of these two species). We recognise that the ES identifies this issue and considers the WeBs data.

2.3.2 One of the reasons these birds nest on the spit is that it is relatively free of disturbance compared with other areas of the harbour. We suggest that the applicant discusses other potential locations which would also provide nesting opportunities within the site with the RSPB and considers this alongside data on how these sites may already be utilised by existing bird populations and therefore whether there is capacity.

2.3.3 Subsequent monitoring of these populations should be carried out, but we advise consultation with the RSPB as this may already be covered by their monitoring programme.

2.3.4 Below is information on oystercatcher and ringed plover breeding habitats:

Oystercatcher

This species breeds on coastal saltmarshes, sand and shingle beaches, dunes, cliff-tops with short grass and occasionally rocky shores, as well as inland along the shores of lakes, reservoirs and rivers or on agricultural grass and cereal fields, often some distance from water (Hayman et al. 1986, del Hoyo et al. 1996). Taken from: <http://www.birdlife.org/datazone/species/factsheet/22733462>

See also:

http://www.birdlife.org/datazone/userfiles/file/Species/erlob/summarypdfs/22733462_haematopus_ostralegus.pdf - this has a table of habitats and notes which are suitable breeding or non-breeding habitat for oystercatcher.

Ringed plover

Ringed plovers are solitary nesters that breed primarily on sand or shingle beaches. They can also, occasionally, be found nesting at gravel pits, on short grassland or open arable land (Birdlife International 2016). Ringed plovers are highly site-faithful (Pienkowski 1984; Jackson 1994).

Based on info in: <http://www.birdlife.org/datazone/species/factsheet/22693759>

See also:

http://www.birdlife.org/datazone/userfiles/file/Species/erlob/summarypdfs/22693759_charadrius_hiaticula.pdf - this has a table of habitats and notes which are suitable breeding or non-breeding habitat for ringed plover.

Pagham Harbour SSSI is designated for its geomorphological interest with regard to its double spit system and associated ebb delta.

2.4.1 Potential mitigation measures to address the impact are detailed below and focus on allowing the geomorphology of the site to evolve as naturally as possible (i.e. without further human intervention) in the future following the breach. Whilst not avoiding an impact to the existing interest, the suggested mitigation measures will assist with the recovery of the SSSI interest, and substantially benefit the future interest.

2.4.2 Some residual impact on the geomorphology remains (loss of the rapid expansion) and the decision maker will need to weigh up this loss when considering the protection of the properties.

Possible mitigation measures

i. Allow the position of the 'breach/mouth' to evolve without further intervention. If re-opening of the breach is required, this should seek to avoid fixing the harbour opening and should avoid the loss of shingle from system. It is appreciated that the requirement to intervene to re-open the harbour inlet should be limited as the proposed breach is being designed to be relatively self-sustaining.

ii. The construction plan being provided by the applicant should ensure protection of the surface geomorphology of shingle ridges and recurves. This plan should detail the routes to be taken by machinery and personnel to access the site and the construction locations. The general advice is to stick to existing paths/tracks and particularly on the spit to travel below the mean high water line where any disturbance to shingle would be re-distributed at next tide. In general vehicles and personal should keep off the shingle – particularly the newly formed ridges and recurve features.

iii. The lowering of the inner part of the wide existing crest of the 'historic' spit located up drift of the breach could also be considered (see figure 1). Presently, the crest here is artificially elevated as a result of historic engineering works, and will prevent the natural evolution of the spit via periodic over washing of gravel. Lowering the crest to a more natural level would avoid this issue.

iv. Opportunities to remove relict hard engineering structures (e.g. remnants of historic training walls in the south west of the Harbour to the rear of the Church Norton end of the spit) could also be taken - see figure 2. These structures are likely to have a detrimental effect on the SSSI geomorphology interest by restricting the natural evolution.

v. Consideration would need to be given to impacts on other interest features that may be impacted by any mitigation works.

vi. We advise that it should be ensured that the regional monitoring programme will capture the post-breach evolution of the spit to allow interpretation of the evolution of its coastal geomorphological interest. This could be achieved through discussion with the local authorities and the Channel Coast Observatory.

2.5 Consideration of the MCZ interest features for the stage 1 assessment

2.5.1 The potential impacts of the proposal on the MCZ designated features - including DeFolin's Lagoon snail, the seagrass beds and the lagoon shrimp, relate to their requirement for a saline influence that is currently maintained by the harbour's regular tidal inundation. The harbour closing for any substantial period may impact these features. Mitigation which ensures the harbour remains open for the SPA/Ramsar bird features is likely to address this concern.

2.5.2 Construction impacts on the DeFolin's lagoon snail around Little Lagoon with regard to siting and access for vehicles. The ES proposes this location for siting machinery and a point of access to the area for the shingle bund construction. The impacts are likely to be through compression and compaction of the shingle. This impact could be avoided by having a construction buffer zone of between 5m -10m around Little Lagoon, (there is fence line already in place) and using existing track ways and paths, and not turning vehicles on shingle but reversing back along existing tracks. This detail could be set out in a construction plan that details the routes for construction vehicle and personnel and the areas to use and those to avoid.

2.5.3 Natural England has advised that there is no requirement for any further surveys for the DeFolin's lagoon snail within the recently accreted distal end of the spit. This is because, based on the snail's life-cycle which limits its dispersal, the snail is unlikely to be present in this very recently accreted shingle.

2.6 DeFolin lagoon snail on the revetment

2.6.1 There is the potential for the proposed tern island to have an impact on the snail in this location. During one of the surveys, dead specimens of the snail were found on the revetment. Placing large amounts of shingle over this area may smother any snails present in the area. We advise therefore that the island should be designed to ensure that new shingle does not have to be placed over the area where the snail is likely to have its optimal habitat or if further surveys indicated the site is not used by the snail therefore no further alteration to the design would be needed."

Further Comments in respect of the Maintenance of the Harbour Opening:

"Rationale

The only acceptable reason and stated reason in the application for reopening the breach is if the harbour mouth blocks itself following the cutting of the artificial breach. This is to

ensure a regular tidal inundation of the intertidal SPA \ SSSI \ MCZ. It is a condition associated with Habs Regs compliancy and this needs to be recognised. This rationale should be made clear in the associated planning conditions thus avoiding the risk of it being done for other purposes and keeping the channel fixed in situ which is not what the application proposed.

Length of Condition

The condition length of times should be consistent between Authorities. It also makes sense given the uncertainties involved in how the system will respond and the potential risk to the SPA interest and other nature conservation interest features of Pagham Harbour that the slightly longer 15 year period is used.

Method for Unblocking the Channel

From the geomorphology SSSI perspective natural development of the western spit following the proposed breach should be allowed to occur as the application's principle is to work with natural processes. This is likely to involve the gradual extension of the western spit and deflection of the channel eastwards through erosion of the remnant eastern spit. If the harbour mouth becomes blocked it will be best to undertake this work from the eastern side of the channel; thereby avoiding damage to the evolving new spit. In most circumstances this should be a relatively straight-forward operation involving opening up a small channel that will then cut down to become self-cleaning. Given the dynamic nature of the system it is hard to be prescriptive about the exact details so the condition should require that any such works are approved by NE and others who should be consulted on coastal works. A similar access methodology will also need to be applied as for the initial breach.

Funding

There are examples of developers being required to provide an upfront bond to cover any necessary costs, a satisfactory guarantee needs to be in place that will provide funding if it proves necessary (this was a requirement of AA and offered by the applicant).

Who makes the decision about subsequent work?

There is some logic in that NE has the final say in this as the rationale for doing any future works is a nature conservation one. The option of a small group of regulators and the developer i.e. the stakeholder group who agree to meet / or by telephone to manage and monitor this condition is acceptable – however, the final decision may still be best left with the competent authorities and the statutory body for nature conservation.

The arrangements around the points below also need to be discussed as there scope for misinterpretation over such a long time-period:

- When is the harbour actually closed? Do we need to define this?*
- How quickly does the developer need to be able to respond if the harbour does close?*
- Who should notice be given to - ADC/CDC/MMO? Consultation with EA and NE*
- Who is the NE contact?"*

ENVIRONMENT AGENCY – No further comments:

"We have no comments to make with regard to the additional information submitted for this application. Our previous advice and recommended condition to this application still stands".

HISTORIC ENGLAND – No objection subject to a condition:

"We have received amended proposals for the above scheme. We previously provided advice to your council, to Chichester District Council, and the Marine Management Organisation regarding this application, advising that the applicant should provide an assessment of significance of the historic environment and potential impacts upon it. We have reviewed the new information available and provide the following further advice. We will also be providing comparable advice on this application to Chichester District Council.

Summary

We have reviewed the amended information provided to us as part of this application ('Managed Breach of Shingle Spit at Pagham Harbour; further information for planning application and marine licence'; ABPmer May 2016), and think that the development has the potential to cause harm to undesignated and previously unidentified heritage assets, in particular during construction of a Little Tern habitat and an access causeway. It will therefore be necessary to undertake further investigation and field survey in order to ensure that the archaeological and historical interest of the development site is safeguarded and recorded, to comply with the National Planning Policy Framework. Historic England recommends that planning consent could be granted for the scheme but that this should include conditions to secure a suitable program of investigation, recording and mitigation works for the historic environment.

Historic England Advice

Significance

In our previous advice we raised concerns that the development had the potential to cause harm to undesignated heritage assets. We therefore recommended the applicant commission a desk based heritage assessment in order to fully understand the heritage significance of the development area. We recommended the desk based exercise should examine available archaeological, geo-archaeological, and marine geophysics data. The applicant has now produced a document providing further information in the form of an archaeological desk based assessment and archaeological information chapter (chapter 4 and Appendix B of 'Managed Breach of Shingle Spit at Pagham Harbour; further information for planning application and marine licence'; ABPmer May 2016).

The archaeological assessment has shown that there is a significant amount of evidence for Bronze Age, Roman and medieval activity in the area surrounding Pagham. The Harbour itself was a Roman seaport, and from this period onwards was subject to successive phases of land claim intensifying in the medieval period. Evidence of settlement activity from multiple historic periods can therefore be expected. In addition there are records of maritime and aviation losses at Pagham, the exact locations of which are as yet unidentified.

Collectively this information indicates that there is significant potential for the discovery of archaeological, geo-archaeological, and maritime artefacts and deposits to be encountered

within and around the harbour. Despite this potential, the desk based assessment indicates that there has been little previous archaeological investigation work within the harbour.

Impact

In our previous advice we identified four key areas of impact from the development which could be defined as; breaching of the shingle spit, construction of a temporary access causeway, habitat creation, and secondary impacts such as increased water flow and scouring.

The archaeological assessment has confirmed the recent nature of the beach deposits in the area of the breach and the shifting nature of the opening to the harbour in the past, meaning it is unlikely that there will be any prehistoric or historic evidence preserved here, particularly within the c -2m OD depth of the proposed breach, but also as the breach evolves and deepens. We also note the natural breach and coastal change that has occurred since we provided our previous advice, and agree with the applicant that it is unlikely that artificial breaching of the spit will impact upon stratified archaeological deposits. We note however the potential for the discovery of re-worked archaeological finds during shingle movement.

The creation of a Tern Island requires the burial of a concrete structure, identified as part of a 1930's sea defence, and excavation of a 20m wide channel to a depth of 3.5m to isolate the island from predation. The concrete structure is of limited local historic significance, and will be preserved in situ by burial under shingle. In section 4.2.4 of the submitted document, it is noted that cutting the channel would primarily affect estuarine mud and shingle of early 20th century date, and that a field drain also will have caused disturbance here. We think it is possible that this area has the potential to contain deposits of archaeological interest. This is because no archaeological survey has taken place previously in this area, the exact depths and nature of deposits in this area

are likely to be variable, and disturbance from the field drain may not be extensive throughout the deposit sequence. We therefore think that excavation of the trench has the potential to cause harm to archaeological deposits.

For the construction of the breach it will be necessary to infill the existing inlet and create a temporary access causeway. The causeway may need to be created by insertion of a driven sheet pile wall; section 4.2.2 of the report indicates the final construction methodology is still underway for this element of the scheme.

Section 4.2.2 of the supporting document suggests that although sheet piling could conceivably affect previously undisturbed deposits, this is highly unlikely given that no archaeology has been exposed, but yet it also notes that encountering riverside maritime finds, or wreck losses in this area cannot be discounted. We do not think the lack of previous recognition or recording of archaeological deposits or artefacts in this area is an indication of low potential for discovery. It is more likely that a lack of archaeological observation and recording in this area has simply resulted in poor data, given that Pagham has never been subject to detailed archaeological assessment. We think that driving of sheet piles therefore has the potential to cause harm to undesignated marine heritage assets and archaeological deposits. We agree that infill itself is unlikely to cause harm to buried archaeological

deposits, but it could cause harm to marine heritage assets such as unidentified wrecks.

With regard to secondary impacts, the applicant has identified that there will only be a temporary reduction in water levels or flow energies during construction, and that there will be a slight reduction in flow speeds within the harbour post-breach, and with the concentration of any changes in both instances close to the harbour entrance. We are therefore in agreement with the applicant that there is unlikely to be any significant impact to archaeological deposits from these effects. There will be continuing changes in the future to site morphology, however these changes are unlikely to be greater than those which are currently occurring as a result of natural coastal formation.

Policy

The National Planning Policy Framework

All of the NPPF policies together constitute Government's view of what sustainable development means in practice, so development must meet all of the policies in order to be sustainable.

Para 129 states that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

Para 141 indicates that Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

Assessment

Our review of the additional information provided by the applicant indicates that the proposed development has the potential to cause harm to undesignated heritage assets, primarily through excavation of a channel to create a habitat Island for Little Tern, and through the creation of an access causeway. We do not therefore agree with the general statement made in the executive summary of the supporting document (pg v) that there will be no significant impact to features of archaeological interest.

We understand the importance of the scheme for protection of a significant number of properties and do not therefore object to the scheme, but advise that further field investigation will be required, and the details of this program of work should be formulated in consultation with Historic England and the Chichester Archaeological Officer.

The applicant has noted the potential for discovery of un-stratified archaeological finds within the shingle of the breach area, and suggests that the relevant council officer be informed of any discoveries. A more formal arrangement will be necessary, and an agreed

finds reporting protocol will need to be secured as part of any program of works.

It will be necessary to understand more fully the nature of the deposits within the area of the channel for the Tern Island, to establish the archaeological potential and significance of the deposits surviving in the harbour. We therefore suggest that a series of boreholes are undertaken in this area to provide further detail of the deposit sequence in this area. It may also assist interpretation to undertake some supporting samples on the drier ground within the harbour. Based on the results of this investigation it may then be necessary to undertake further investigation or mitigation works ahead of, or as part of, construction of the channel.

The concrete structure that will form the Tern Island is part of the 1930's flood defences, and we suggest that a location plan and photographic record of any visible elements of the structure before burial would suffice.

It will be necessary to further investigate the area of the proposed causeway, to establish whether there may be any marine heritage assets and archaeological deposits in this area that could be impacted by the infill or sheet piling. Geophysical survey is a practical and rapid method of identifying any potential marine heritage assets, such as previously unidentified wreck sites, and also former channels where there may be increased potential for archaeological deposits. Section 1.5.5 of the supporting document notes that a series of surveys have already taken place including LiDAR, laser scanning and bathymetric survey. These techniques can be invaluable for identifying the above types of features. We therefore suggest that archaeological and geo-archaeological analysis is undertaken of existing geophysical survey data. Following this analysis we recommend that a series of targeted boreholes should be undertaken to provide supporting data regarding the deposit sequence in this area. If heritage assets in this area are identified that will be impacted by the causeway creation, then further investigation or mitigation may be required.

Mitigation works of the channel and causeway creation may include preservation by design thus preserving heritage assets in situ, undertaking further sampling, or systematically recording heritage assets, deposits, or artefacts affected by the development. Historic England and the Chichester Archaeological Officer will need to be satisfied that adequate provision is being made for the investigation, recording and mitigation of any identified heritage assets within the development area, with a proposed program of work to include geophysical data analysis, borehole survey, and potentially further field investigation, and mitigation.

Recommendation

Because the proposed works have the potential to cause harm to heritage assets, Historic England recommends that planning consent could be granted for the scheme but that this should include conditions to secure a suitable program of investigation, recording and mitigation works for the historic environment.

We have previously provided a version of the following condition to the MMO, and to you and Chichester District Council, and recommend this updated condition could be applied to any permission that is granted in respect of this application:

[1] No development shall take place until the developer has secured the implementation of a program of archaeological investigation and mitigation (to include terrestrial archaeological, geo-archaeological, and marine field archaeological work as appropriate), undertaken in accordance with a Written Scheme of Investigation, which has been submitted to and approved in writing by the Local Planning Authority as advised by Historic England and the Chichester Archaeological Officer.

Reason: To ensure that the archaeological and historical interest of the development site is safeguarded and recorded, to comply with the National Planning Policy Framework.

In furtherance of these recommendations we shall be able to advise the applicant on how best they can fulfil any archaeological conditions applied."

RSPB – Comment:

"We apologise for the delay in commenting. The RSPB is not a statutory consultee and, whilst we have played an active role in the process to date and have generally been consulted direct by the applicants or their consultants, this did not occur on this occasion with the result that the document did not immediately come to our attention. We have reviewed the document with particular reference to its ecological content, including the Implications of breach and project objectives in section 1.4, Appropriate Assessment Information in Section 2 and the Other EIA and MCZ Information in Section 3. With regard to these issues, we are satisfied that the applicant has adequately addressed the outstanding issues identified in Arun District Council's letter dated 7 March 2016.

Archaeological issues (Section 4) are outside the remit of the RSPB and accordingly we have not offered any views on these aspects. However, in the event that the proposal is approved we undertake to provide such assistance as we are able, through our site-based staff, to ensure that relevant archaeological and historic heritage features are afforded appropriate protection during the construction and operational phases of the project."

CHICHESTER DC ECOLOGY – No further comments.

ADC PLANNING POLICY – No further comments.

ADC ENVIRONMENTAL HEALTH – No further comments:

ADC DRAINAGE ENGINEERS – No objection. The following comments were provided (text as copied from the response):

"Thank you for the opportunity to respond to the above application, including the 'Further Information' document of May 2016 by ABPmer. When considering the overall merit of coastal defence schemes, especially those looking to attract Flood Defence Grant in Aid (FDGiA), it is normal to consider the scheme for Technical, Environmental and Financial soundness. This scheme may not now be looking to attract FDGiA but the three-pronged consideration process still has some worth.

The Environmental aspect will be handled under the Planning process but there will also be overlap, in that Planning process, with the other two above headings. Accordingly, in this response I will endeavour to confine comments to planning consideration but there will inevitably be technical and financial issues reflected upon; especially but not limited to the coastal process and buildability aspects of the proposals.

I am largely in agreement with the history of the site and how the situation arose as set out in the Application documentation. I am also of the opinion that cutting the spit will have the desired effect of relieving the scouring effect from in front of the residential area of Pagham Beach; what is less clear is the time to the onset of full benefit of the operation (more is said on this below).

Further, it should be acknowledged that overall, there is a great deal of uncertainty of the likely evolution of the coastal processes in this dynamic situation. This has led to the policy of Adaptive management. The uncertainty includes not only the forcing factors (e.g. weather/wave conditions) but also the natural littoral drift (available volume of shingle in the system); it is unknown whether the volume will increase/decrease in the future. The growth of the spit is likely to have been caused by an increase in littoral transport - this could reduce to the recent past volumes or indeed increase further.

The various effects could have unpredicted effects on the new cut arrangement, ranging from the formation of a secondary, seaward spit (which could have the effect of deflecting material off-shore), the cut not developing as envisaged, to a channel blockage (partial or full).

The project objectives are set out and used in the latter Appropriate Assessment [AA] - these are the Applicant's objectives and the AA outcome may be skewed slightly from what a coastal defence scheme would normally see as objectives.

In the previous configuration of the spit (i.e. pre-April '16 breach) there were a number of 'uncertainties' noted by the Applicant/Agent in the likely effects of the proposal; some of these have may have reduced or been removed by the natural breach that has recently occurred; some may have been removed and some changed. I note below what I see as the main current risks in terms of coastal processes. I will then go on to look at what I see as delivery/operation uncertainties.

The application seeks to re-establish the outflow in its 2003 location and in doing so to remove the local scouring effect in front of residential property and thus reduce the risk in the immediate area and to allow a reconnection of the sediment transport paths. This reconnection would allow shingle 'locked up' in the spit and the natural available littoral drift to travel onto the main part of Pagham Beach. It is unclear how long this process would take and therefore how large the 'lag' would be between implementation and full beneficial effect.

Some guide to this can be gleaned from the effects of the recent breach - we have not yet seen the onset of close shore transport yet, although there may be near-shore transport on the low tide banks. The point being that I very much doubt that there will be an instant

change in the condition of the main part of Pagham Beach following a cut - the effects may not be seen for some time before full onset.

The more formalised cut arrangement may deflect water and sediment flow further offshore, detracting from a shore 'hugging' path - the uncertainty here is a) the magnitude of this potential deflection b) the distance over which this deflection would continue (i.e. where the flows would revert to a close shore condition). The shingle might come back onshore quite quickly (e.g. onto the severed part of the spit); onto Pagham Beach or even bypass Pagham altogether and come back on at Aldwick in time.

The Applicant has stated that it is likely that the channel will reach a natural equilibrium state within a few sets of spring tides. I am somewhat confused as to why a very formalised, designed cut is proposed and expounded as a viable solution for 8 years when the channel is likely to change in a matter of three months.

With the recent breach there is not only a redirection of the channel flow(s) but also a general lowering of the spit from the newly formed channel back towards the root of the spit (and the proposed cut location). By blocking the existing channel immediately inside the new cut, there will still be flow of water into, and wave action on, the gap between the severed part of the spit and main beach.

There is no precision possible in the prediction for the evolution of the spit overall; the recent breach has reduced the length of the now connected spit and the area of this will reduce even further under these proposals. The likely evolution of this much reduced down drift 'stub' and the associated cut-back to the landward side of the existing channel is not well described; there are risks of the 'stub' portion evolving in an unexpected way.

Construction methodology - the Steel sheet Piling (if required) crest is stated to be at a level of 0m OD and a toe at -3m OD therefore the piles would be 3m long. I do not think it would be possible to pitch and drive ~100m of piling over one low tide and even on a neap tide. The flows in and out of the harbour would be accelerated through the unconstructed portion of the dam, increasing flow velocity and scouring, both to make the channel deeper and progressively wider. A similar channel dynamic has been experienced here previously, between the growing spit and the fixed Groyne. The channel would tend to migrate beyond the free end of the piling leading to a potential for uncontrolled loss of the spit. This is not to say that a blocking of the existing channel isn't possible but I would caution against the proposed methodology - perhaps, but not limited to, using rock bags that could be prepared and deposited in layers over a few tides. To form the working causeway - the problem with that being the sourcing of the raw material to fill the bags.

The process of stockpiling material dug from the new cut arrangement will have to be considered very carefully now that the spit has breached. The area of the connected spit is becoming increasingly small and may not be sufficient to hold the material dug before it is pushed into the channel to form the block. The Application does not include for rebuilding the spit to enable a stockpile to be formed. We have recently received laser scanned data for the beach monitoring team and this is being assessed currently - that data has also been

supplied to the Applicant for him to undertake his own assessment of the viability of his methodology.

Uncertainty on the future management of the new arrangement - Notwithstanding any definite requirement of Natural England / RSPB for the cut to be managed in a particular way, the Applicant has suggested a stakeholder group and a traffic light system. This is very commendable but it leaves questions which I suggest would need to be suitably conditioned in any approval of this Application:

- Who does the work - it is currently unclear who would undertake the work (i.e. would be the client) of cutting the spit should this application be approved; it is even less clear who would be the client for any required future maintenance. This may not be a direct Planning consideration but there should be in place a regime for dealing with the future and the Client for this should, I believe be established to ensure viability/certainty of delivery.

- Who pays - there is very little chance of obtaining any Flood Defence Grant in Aid for the works now that the spit has breached naturally. The community is gathering funds to undertake the work and for a nominal re-cutting operation and the predicted ongoing maintenance/wardening. There is a risk that the 'community' will want to get on with the initial cut without the funding being in place for all the future potential operations and to have a contingency to deal with the uncertainties.

- What permission are required outside of any deemed given by virtue of a consent for this application - as above, there may be future maintenance requirements that are outside of the scope of this Application - this could have an impact on undertaking further work. The Applicant and the community should not feel that there is carte blanche for any future maintenance operations or indeed any now that are outside the scope of the Application but which might well help manage the situation as it is found to be at the time,

Mitigation/compensation - it is reported that other interested parties are now satisfied with the arrangements for providing compensation. I do not believe that the proposal to dig the separating channel to -0.5m OD will mean that the island will be an island at all states of the tides; thus predators will be able to gain access to the new tern habitat.

The AA has determined that there are no identified alternatives. The adopted policy for the area remains Adaptive Management and whilst the Applicant's objectives may not be met by this policy or various other alternatives, the area could be managed by regular recycling / importation of shingle as we have done in the past. Only those shortlisted alternatives put forward a previous consultant working on the project would seem to have been considered.

The natural breach that occurred in April and which has continued to evolve, may remove the need for this or any work being required - this uncertainty is noted above.

In summary, the cut is likely to have the desired effect but the time to onset of the benefits and the longevity of those effects are uncertain. There are uncertainties in the potential evolution of the spit and the area in general. The practicalities of undertaking the work with the methodology suggested needs to be fully assessed. The 'client' status and the ongoing

maintenance/wardening arrangements require suitable conditioning and the precise arrangements for the mitigation need to be carefully conditioned."

FURTHER CONSULTATION WITH THE ENVIRONMENT AGENCY RE BATHING WATER QUALITY:

"Thank you for your consultation regarding the above which was received on 20 February 2017. The Water Framework Directive (WFD) assessment includes reference to bathing water issues in order to address, in advance, an expected planning condition from the Environment Agency. The applicant acknowledges that the assessment refers to some out of-date information because much of the text is unchanged from a previous (2015) submission, even though a new River Basin Management Plan has been published in the interim. In the circumstances we are able to review the information as presented. The works are proposed to be undertaken during the bathing season (May to September) partly to minimise works during the bird overwintering period. The WFD assessment concludes that deterioration of bathing water quality as a result of the works is unlikely due to the coarse nature of the material, distance away (700m) and likely uncontaminated sediment status. Although the assessment lacks some of the expected detail we are satisfied with its conclusions and therefore deem the works to be WFD compliant in relation to Pagham bathing water protected area."

CONSULTATION WITH NATURAL ENGLAND ON THE APPROPRIATE ASSESSMENT:

"Thank you for consulting Natural England on the Appropriate Assessment undertaken by your authority and sent to us on 4th July with regard to the managed breach of Pagham Harbour spit.

This assessment concludes that there would be an Adverse Effect on the Integrity of the site as a result of this proposal. As the statutory adviser for Appropriate Assessments we advise that we concur with your assessment of the impacts and the conclusion you have reached.

We have made some minor suggestions within the assessment (attached) for your consideration. These are intended to help with clarity but we advise that we do not consider these affect the assessment's conclusion.

If you are minded to proceed with this application, any mitigation measures suggested in the assessment or implicit in the application that are required should be secured through appropriate planning conditions.

We also advise that compensation measures have been developed and if these are required we consider that they would be sufficient. We are happy; however, to continue to provide advice on these measures if this would be helpful."

CONSULTATION WITH NATURAL ENGLAND ON THE DEROGATION TESTS:

"Regarding the HRA assessment for stages 2 and 3, Tom Day is correct in his advice that Natural England is not a statutory consultee for the derogation tests of the Habitats Regulations. However, we are happy to provide advice as requested. The HRA and the

approach taken seem sensible and clear. We would advise that the objectives against which alternatives to the proposal are considered are a matter for the competent authorities to decide upon. However, from an environmental perspective, we would suggest that 'Minimise breeding bird habitat damage' is not an objective of the proposal, but rather a matter that needs to be (and which has been) considered as part of the assessment of the proposal.

The alternatives, and their relative merits are also a matter for the competent authorities to weigh up, as they are a consideration of different coastal defence solutions. Ultimately, it is a matter for the local authorities to determine the basis on which the primary objective will be met. In this respect, we would advise the HRA has taken the correct approach in recognising that the Habitats Regulations process enables projects to proceed, notwithstanding a negative assessment of the implications for the European site, if there are no alternative solutions. Again, the test of IROPI which then follows is not a matter on which Natural England can advise."

CONSULTATION WITH NATURAL ENGLAND RE SEVERE/FREEZING WEATHER RESTRICTIONS:

"Please see below our advice on the working restrictions subject to severe/freezing weather as requested below.

As previously advised, the main mitigation regarding impacts on the overwintering birds of the SSSI/SPA is for the construction phase to avoid the over-wintering season, particularly the key period from 1st November to the end of March. However, if the work has commenced in a timely way but for unforeseen circumstances has overrun and essential work needs to be completed, we would advise that the work can continue but should be restricted during any severe/freezing weather.

There exists both a voluntary and statutory approach with regards to waterfowl shooting and other recreational pursuits that may disturb birds, whereby these activities are suspended after 7 or 14 days of severe/freezing weather. However, this approach is not a very sensitive trigger and is not designed for planning/construction activities within designated sites. We would therefore advise that a modification of the approach is taken. We would recommend that the works would be restricted after 7 days of continuous severe/freezing weather as recorded by the nearest meteorological station to the site (rather than across a number of sites), and that work is suspended for 14 days unless the weather improves, providing a recovery period for the birds. This could be advised on by the RSPB as the site managers.

This approach could be condition provided that the construction started in a timely manner and the delay and requirement to work past the 1st November is for essential works only. Natural England would also like to be kept informed if the works are due to overrun.

Further details of the severe/freezing weather suspension can be found at: <https://baso.org.uk/shooting/severe-weather-and-waterfowl-shooting/>. The JNCC page: <http://jncc.defra.gov.uk/page-2894> also provides the detail as to why and how this restriction is applied."

And for clarification:

“The trigger is 7 days of freezing or severe weather, and the mitigation is 14 days after this to allow the birds to feed and recover.”

Comments on Consultation responses:

Comments noted. These issues are analysed in the ‘Planning Assessment’ section.

POLICY CONTEXT

Designations applicable to site:

- Outside built up area;
- Site of International Importance for Nature Conservation;
- Site of National Importance for Nature Conservation;
- Pagham Harbour Access Management Zone A; and
- Flood Zones 2 & 3.

DEVELOPMENT PLAN POLICIES

Arun District Local Plan 2003:

AREA13	Sites of International Importance for Nature Conservation
AREA14	Sites of National Importance for Nature Conservation
AREA17	Sites of Archaeological Interest
GEN3	Protection of the Countryside
GEN7	The Form of New Development
GEN10	Tidal Flooding and Coastal Defence
GEN12	Parking in New Development
GEN19	Coast Protection and Sea Defence Works
GEN23	The Water Environment
GEN29	Nature and Conservation Across the District

Publication Version of the [Emerging] Local Plan (October 2014):

C SP1	Countryside
D DM1	Aspects of Form and Design Quality
SD SP1	Sustainable Development
ECC SP1	Adapting to Climate Change
ENV SP1	Natural Environment

ENV DM1	Designated Sites of Biodiversity or Geological Importance
ENV DM2	Pagham Harbour
ENV DM5	Development and Biodiversity
HER DM6	Sites of Archaeological Interest
T SP1	Transport and Development
W DM2	Flood Risk
W DM4	Coastal Protection

NATIONAL PLANNING POLICY AND GUIDANCE

NPPF	National Planning Policy Framework
PPG	Planning Policy Guidance

DEVELOPMENT PLAN COMMENTARY

The Development Plan consists of the Arun District Local Plan 2003, West Sussex County Council's Waste and Minerals Plans and Made Neighbourhood Development Plans.

Arun District Council's Development Plans:

Paragraph 215 of the NPPF ensures that specific policies in Arun District Local Plan 2003 can carry weight. The weight afforded to the policies with Local Plan policies can be assessed according to their level of consistency of the various policies with the National Planning Policy Framework.

Paragraph 216 of the NPPF confirms that weight can be given to policies in emerging plans from the day of publication.

A new local plan is in preparation and may be a material consideration when determining Planning Applications. At this stage the Arun District Local Plan 2011-2031 (Publication Version) October 2014 and supporting documents were submitted for independent examination on 30 January 2015. The Examination into the submitted plan was commenced but is currently suspended whilst Arun District Council addresses matters raised by the Inspector.

A number of Main Modifications to the Arun District Local Plan 2011-2031 (Publication Version) October 2014 were approved by the Council on 22nd March 2017 and consultation on these is taking place 10 April 2017 to 5pm on Tuesday 30 May 2017. The Main Modifications should be read alongside the Arun District Local Plan 2011-2031 (Publication Version) October 2014 and where there are changes the Main Modification may also be material consideration to take into account.

The relevant policies of the Arun Local Plan 2011 to 2013 - Submission Document - Modifications for the Inspector - March 2017 are as follows:

C SP1	Countryside
D DM1	Aspects of Form and Design Quality
SD SP1	Sustainable Development
ECC SP1	Adapting to Climate Change
ENV SP1	Natural Environment
ENV DM1	Designated Sites of Biodiversity or Geological Importance
ENV DM2	Pagham Harbour
ENV DM5	Development and Biodiversity
HER DM6	Sites of Archaeological Interest
T SP1	Transport and Development
W DM2	Flood Risk
W DM4	Coastal Protection

The policies are published under Regulations 19 and 35 of the Town and Country Planning (Local Planning) (England) Regulations 2012.

The Neighbourhood Development Plan

Where applicable, Neighbourhood Development Plan's (more commonly known as a neighbourhood plan or NDP), once made by Arun District Council, will form part of the statutory local development plan for the relevant designated neighbourhood area and policies within them will be considered in determining planning applications. Made NDP policies will be considered alongside other development plan documents including Arun District Council's Local Plan. Whilst an NDP is under preparation it will afford little weight in the determination of planning applications. Its status will however gain more weight as a material consideration the closer it is towards it being made. Arun District Council will make reference to an NDP when it has, by the close of planning application consultation, been publicised for pre-submission consultation(Reg.14).

Made Plans in Arun District Council's Local Planning Authority Area are: Aldingbourne; Angmering; Arundel; Barnham & Eastergate; Bersted; Bognor Regis; Clymping; East Preston; Felpham; Ferring; Kingston; Littlehampton; Rustington; Walberton; Yapton.

Arun District Council will make reference to an NDP when it has, by the close of planning application consultation, been publicised for pre-submission consultation (Reg.14).

In December 2014, the Pagham Neighbourhood Plan was withdrawn from the examination process to enable further detailed studies to be made in respect of an updated Habitat Regulations Assessment and an Access Management Strategy.

This work has been completed and although the Plan has not yet been made, the Regulation 14 'pre-submission consultation & publicity' stage was undertaken between 02/10/15 and 13/11/15. There has been no update on this position since that time. In accordance with

paragraph 216 of the NPPF, some weight may therefore be given to the draft Neighbourhood Plan at this stage.

It is not considered that there are any specific policies in the draft Neighbourhood Plan that are relevant to this proposal. However, the following two “Proposals” in the draft plan are considered to be relevant:

Proposal 1: Coastal Protection

“The Parish Council will support proposals for coast protection and sea defence works, in the area shown on the Proposals Map, to reduce flood risk and to protect against the loss of homes, businesses, tourism attractions and habitats in Pagham, in pursuit of the adopted Pagham to East Head Coastal Defence Strategy 2010, together with its associated DEFRA Strategy Approval Report 2009 and its Decision Framework for Adaptive Management at Pagham Harbour.

The detailed design of the works will be to the satisfaction of the regulatory authorities and should ensure that any significant impact on the Designated Nature Sites within the vicinity of the works is avoided.”

Proposal 6: Infrastructure Projects

“The Parish Council will secure funding from planning obligations and the Arun Community Infrastructure Levy in order to make financial contributions to a number of infrastructure projects during the life of the plan.

Core priorities have been identified as:

- i. Flood protection from agricultural run-off;*
- ii. Coastal protection;*
- iii. Long-term pluvial and fluvial flood defence;*
- iv. Securing a safe alternative cycle route to North Mundham and Chichester (avoiding the B2166);*
- v. Traffic calming measures along Pagham Road; and*
- vi. Securing additional off-road parking within the villages.*

The prioritisation and timing of these projects will be based on an assessment by the Parish Council of community need, viability and affordability and long-term community benefit and urgency.”

DEVELOPMENT PLAN BACKGROUND

Section 38(6) of the Planning and Compulsory Purchase Act 2004 states:-

"If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise."

The application is not considered to comply with the Development Plan in that it proposes development which is not in accordance with the Council's policies on 'countryside' locations and because there are no policies within Sections 2 and 3 of the Local Plan to support the development.

OTHER MATERIAL CONSIDERATIONS

It is considered that there are other material considerations to warrant a decision otherwise than in accordance with the Development Plan and/or legislative background namely:

- That there is support within the emerging Arun District Local Plan 2011-2031;
- That there is support within the emerging Pagham Neighbourhood Plan;
- That there are no objections to the application from either statutory consultees or local people – indeed, local people support the proposal;
- That the application will result in significant positive benefits to the local community in terms of coastal protection and reduced flood risk; and That there are not considered to be any impacts that cannot be mitigated to the biodiversity of the harbour, to the historic environment, with regard to coastal erosion/flood risk, to the character of the area, on local water quality or on the amenities of the local community.

CONCLUSIONS

BACKGROUND:

The proposal is to address an ongoing erosion issue at Pagham Beach which is currently reducing the amenity of the beach, affecting certain local businesses and threatening people's homes. The main erosion problems at Pagham Beach are largely being caused by the growth of the 'Church Norton Spit' in a north easterly direction across Pagham Harbour.

Over the last decade, the spit and the Pagham Harbour tidal inlet channel has extended across the mouth of the harbour and this has allowed/caused the inlet channel to cut into the adjacent beach leading to localised shoreline retreat. The formation of the spit, tidal channel and the associated 'ebb delta' feature are also locking up shingle and not allowing it to reach the more slowly eroding up-drift sections of the Pagham foreshore via the usual sediment transport routes.

This has put homes at risk and has affected businesses which are either in close proximity to the beach or rely on the beach for access to the sea (e.g. fishermen & sailing clubs who as a result of erosion on Pagham beach now find it more difficult to access the water). Evidence has been collected which shows that since February 2014, the western section of Pagham Beach has lost 40,283m³ and the spit has exhibited a net growth of 11,583m³. Between September 2015 and January 2016, the beach lost a further 7,438m³ and the volume of spit growth was 29,069m³.

Since January 2016, the spit has undergone a further change in that a natural high water breach has formed. This has led to the previous long-shore tidal channel becoming shallower as a result of the deposit of sediment from the spit (i.e. from the natural breach). The natural breach started to become the dominant tidal inlet/outlet replacing the existing channel. It is unclear how this will evolve but the applicants do not consider that natural breach solves the problem and that there is still a requirement for the implementation of the application proposals.

It should also be noted that Arun District Council is continuing to assist the local community by reinforcing the existing coastal protection measures in order to protect the homes that front onto the beach. In recent times (October 2015 to April 2016), this has included:

- Shingle recycling/importation (to bolster the beach);
- The placement of Rock armour between Groynes 3 and 4; and
- The bolstering of Groyne 3 with geotextile membrane.

PROJECT OBJECTIVES:

The Further Information document submitted by the applicant in May 2016 sets out 6 Objectives for the project (Table 1, page 25). It also states that “the overarching objective for this project is to achieve a sensitive and sustainable approach to the management of the Pagham Harbour and Pagham Beach shorelines”. The six objectives are:

1. Larger and longer term coastal defence benefits for Pagham Beach;
2. Improvements to amenity and human health;
3. Cost effective use of money;
4. Application of a soft solution that works with nature;
5. Greater assurance of tidal functioning; and
6. Minimise breeding bird habitat damage.

PRINCIPLE:

The site lies in a countryside location outside the built-up area boundary where, in accordance with Arun Local Plan Policy GEN3, the principle of development is generally considered unacceptable unless in accordance with a form of development stated to be acceptable within the policy or is otherwise in accordance with a policy in Sections 2 or 3 of the Local Plan (AREA or DEV policies).

There are no policies within Sections 2 or 3 that would support the proposal and therefore, in the context of the adopted Local Plan, the proposal is not supported in principle. However, it is acknowledged that the Arun District Local Plan is out of date and that there are more recent policies to consider including the National Planning Policy Framework (NPPF) and the Emerging Local Plan 2011-2031 (Publication Version).

It is not considered that there are any particular sections of the NPPF that directly support the proposal. However, the NPPF is a material consideration to be taken into account when determining planning applications and paragraph 14 sets out a presumption in favour of

sustainable development. In particular, paragraph 14 deals with the Local Plan being silent or relevant policies being out-of-date. In such cases, it states that permission should be granted unless either the adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or that specific policies in this Framework indicate development should be restricted. Footnote 9 to paragraph 14 gives examples of such “specific policies” “those policies relating to sites protected under the Birds and Habitats Directive (see paragraph 119) and/or designated as Sites of Special Scientific Interest”. Paragraph 119 of the NPPF states that the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined. The presumption does not therefore apply in this case.

Policy C SP1 in the Emerging Local Plan will in due course replace Policy GEN3. It largely retains the same policy approach as Policy GEN3 Plan but amends the acceptable development criteria by allowing development which is in accordance with other policies in the Plan which refer to a specific use or type of development (as opposed to policies within other named sections of the Plan). This allows for account to be taken of Policy W DM4 which states that:

“Proposals for coast protection and sea defence works will be permitted if they:

- a. Have been considered in light of their impact on the visual character and value of the open, undeveloped coast, protection and enhancement of coastal habitats and the provision of opportunities to complete the coastal footpath and improve the appearance and use of the coastline in the built-up areas.*
- b. Use methods of coastal defence that are technically sound and appropriate to the task and do not have a detrimental effect on other parts of the coastline; and*
- c. Are in accordance with the Shoreline Management Plan or Strategy for the particular frontage.*

Proposals for development in coastal locations, including for example, sea defence works, will be permitted providing they protect and enhance coastal habitats such as vegetated shingle. Where habitats are lost through the provision of sea defence works, replacement habitats must be provided in a suitable location.

Any works under this policy should take account of any local and/or interest features.

Developments shall also be consistent with all other Local Plan policies.”

It is considered that the proposal has been prepared to take account of the stated impacts (noting the information provided and the detailed discussions which have since taken place between the applicant and the consultees). Secondly, noting that there is no objection from ADC Coastal Engineers, it is considered that the proposal uses methods of coastal defence that are technically sound. Thirdly, it is noted that the Shoreline Management Plan supports intervention at this location in order to achieve the objective of holding the line of Pagham Beach. In addition, the proposal is broadly in line with the option of adaptive management as set out within the more recent Pagham to East Head Coastal Defence Strategy 2010.

Finally, as will be seen from the following sections of this report, the proposal seeks to provide new habitat to replace that which will be lost.

In summary, whilst the proposal is unacceptable in principle according to the Local Plan, it is supported by policies in the Emerging Local Plan. Furthermore, the NPPF does not state that the proposal is unacceptable in principle, but in the first instance, defers to the legal requirement to carry out an appropriate assessment under the Habitats Regulations in these circumstances.

ASSESSMENT UNDER THE HABITATS REGULATIONS:

The site is within the Pagham Harbour Special Protection Area (SPA), a European designated site, and is listed as Pagham Harbour Ramsar site (Wetlands of International Importance under the Ramsar Convention) which benefits from protection as a matter of Government policy.

As the site is within a European designated site (commonly referred to as Natura 2000 sites), the proposal has the potential to affect its interest features, which are afforded protection under the Conservation of Habitats and Species Regulations 2010, as amended (the 'Habitats Regulations').

Natural England's (NE) initial comments advised that the proposal was likely to have a significant effect on both the Pagham Harbour SPA and the Ramsar site. They advised that an Appropriate Assessment (AA) should be undertaken in accordance with the Habitats Regulations and, in line with the Coastal Concordat for England, by a single lead competent authority.

The two competent authorities (CDC and ADC) agreed that an AA should be undertaken. This was prepared by CDC's Environmental Co-ordinator, then subsequently reviewed by NE (whose comments are provided at the end of the Consultation Responses section) and finally formally accepted under delegated powers by each competent authority. Copies of this document and associated delegated approval report are available on the Council's website.

The conclusions of the AA were that there would be an adverse effect on the integrity of the Pagham Harbour site due to the loss of nesting sites for Little Terns and this would substantially reduce the area of the site that supports this rare bird species. The AA recommended that the two Local Authorities should conclude that the project, including mitigation measures but excluding compensation measures, does have an adverse effect on the integrity of Pagham Harbour SPA.

It has also been necessary to consider the proposed Solent and Poole Special Protection Area (pSPA) which will include the Pagham Harbour SPA within its boundaries. The purpose of the pSPA is to protect tern feeding grounds out at sea but as there is no mechanism of impact from this development on these feeding grounds, it is not considered that there will be any likely significant effect and therefore no need to consider this impact at the Appropriate Assessment stage.

The AA then stated that derogation would be required under Article 6(4) of the Habitats Directive. This involved considering three matters:

- (1) Alternative Solutions;
- (2) Imperative Reasons of Overriding Public Interest (IROPI); and
- (3) Compensatory Measures.

After receiving the AA, the competent authorities prepared a further report to assess whether derogation could be made in respect of the proposal. This document was authored by CDC, again reviewed by NE (although unlike with the AA, there was no statutory requirement to do so) and again formally accepted under delegated powers by each competent authority. Copies of this document and the associated delegated approval report are available on the Council's website. The conclusions of this assessment are:

Test 1 – Alternative Solutions

Seven alternative solutions were offered by the applicant and these included the recently introduced option of maintaining the natural breach. The assessment concluded that none of the alternatives met all of the project objectives and therefore, the 'Test of No alternative' was assessed to be met. As there was no viable alternative with less damage to the site's conservation objectives, it was possible to proceed to the tests of Imperative Reasons of Overriding Public Interest (IROPI) and compensatory measures.

Test 2 - Imperative Reasons of Overriding Public Interest (IROPI)

The assessment states that the benefits of the scheme are local but there is clearly a wider public interest in improving the coastal protection of large parts of Pagham which includes both houses and businesses. The assessment states that the economic and social cost of not achieving the coastal defence objectives and so housing being damaged or even lost to the sea is considered to outweigh the environmental damage caused by the project.

Although as noted above on page 10, only anecdotal evidence has been supplied in respect of current harm to local businesses, the potential harm to people's homes is more transparent as the beach to the front of the dwellings along Harbour Road has been receding bringing the sea closer to these dwellings.

The report considers the natural breach that has occurred since the application was submitted reduces the harm to the integrity of the site and makes it easier for the social and economic benefits to outweigh the harm. These benefits are stated to be overriding.

The report states that on the basis that no alternative is feasible, the project is essential compared to the 'do-nothing' baseline position. This part of the assessment concludes that the project meets the derogation requirement of IROPI.

Test 3 – Compensatory Measures

The Regulations state if a project that harms the integrity of a European site is to be allowed under derogation because there is no alternative and where IROPI can be shown, then competent authorities and the appropriate authority (i.e. the Secretary of State) are responsible for ensuring that all necessary compensatory measures are identified and delivered.

The assessment notes the proposal for the creation of a new Tern island. This requires a modest enlargement of the area, the creation of a cut to isolate the island from the spit and re-profiling the shingle to make it more attractive to nesting Terns. Planning conditions will be needed to secure ongoing maintenance including the clearance of vegetation.

The assessment goes on to consider whether this compensatory measure will be technically feasible; whether there is a clear plan for the work and for ongoing maintenance; whether the measures are close to the original site; whether the measures will be established to the required quality in time to compensate for the harm when it occurs; and whether the habitat creation methodology is reasonable.

The assessment goes through each of these points and concludes that subject to the compensatory measures being fully secured financially before permission is granted, they will meet be sufficient for the purposes of the derogation test (i.e. “all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected”).

The assessment offers a final conclusion that all elements of the derogation test under Art. 6(4) are met and on this basis, the Habitats Regulations do not require the application to be refused and it can proceed to a planning determination. The planning determination will assess the other ecological matters including those relating to the SSSI designation.

It is noted that the Habitats Regulations require the Secretary of State (SoS) to be notified of the planning decision to allow the SoS to decide, within the usual period, whether or not to call the application in.

BIODIVERSITY:

The report now analyses the proposed development in relation to the adopted and emerging Local Plan policies which are relevant to the biodiversity of this site

Adopted Local Plan

Policy AREA13 “Sites of International Importance for Nature Conservation” states that:

“Proposals for development in, or likely to affect (directly or indirectly) a site of international importance for nature conservation will be subject to the most rigorous examination. Development not directly connected with or necessary to the management of the site which is likely to have an adverse effect on the site, will not be permitted unless: there is no alternative solution, there are reasons of public health or public safety, or there are benefits of primary importance to the environment.

Where such sites do not host a priority habitat or species, development will not be permitted unless there are imperative reasons of overriding public interest.

Where development is permitted, the use of conditions or planning obligations will be considered in order to avoid and minimise harm to the site, to enhance the site's nature conservation interest, and to secure any compensatory or mitigation measures and appropriate management that may be required."

It is considered that there is compliance with this policy based on the conclusions of the Habitats Regulations Assessment.

Policy AREA14 "Sites of National Importance for Nature Conservation" states that:

"Proposals for development in, or likely to affect (directly or indirectly) Sites of Special Scientific Interest will be subject to special scrutiny. Where such development is likely to have an adverse effect, it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.

Where the site concerned is a National Nature Reserve, a site identified by the Nature Conservation Review or Geological Conservation Review, particular regard will be paid to the national importance of that site.

Where development is permitted, harm to the nature conservation interest must be minimised. The use of conditions or planning agreements will be considered to ensure the protection and enhancement of the nature conservation interest, and to provide appropriate compensatory or mitigation measures and site management."

Natural England provided their final comments on the impact of the proposal on the SSSI. This was contained in a document received on 23rd June 2016. Their comments can be summarised under the following headings which relate to the identified SSSI features:

Vegetated Shingle

- The loss of vegetated shingle will be offset by the creation of the new Tern Island;
- Further details are required regarding the construction of this Island (this can be the subject of a planning condition);
- Methods of protecting new vegetated shingle habitat on Pagham Beach should be secured by condition; and
- A Construction Management Plan is required.

SSSI Breeding Birds

- It may be necessary to identify new breeding locations within the Harbour for the Oystercatcher/Ringed Plover; and
- The RSPB should be consulted.

SSSI Geomorphology Interest

- Recommend a series of mitigation measures (to be secured by condition/s).

In addition, they consider a potential impact to the DeFolin Lagoon Snail which may be present in the location of the new Tern Island. This will require further detail (to be secured by condition) of the design of the island.

In summary, Natural England has no objections subject to a comprehensive suite of measures relating to mitigation and the provision of further information which can be secured by conditions.

The RSPB have commented that they are satisfied that the applicant has adequately addressed the issues previously identified with the original submission.

It is therefore considered, that subject to appropriate mitigation measures, the proposal complies with Policy AREA14.

Emerging Local Plan

Emerging Local Plan Policy ENV DM2 “Pagham Harbour” states that development proposals with Zone A “... will only be permitted in exceptional circumstances where the developer is able to demonstrate there will be no detrimental effects on Pagham Harbour, including non-native species and the water environment. Regard shall also be had to tests 1-4 as set out in Policy ENV DM1 (Designated Sites of Biodiversity or Geological Importance)”.

The 4 tests in Policy ENV DM1 are as follows:

- a. There is no alternative solution (which shall be adequately demonstrated by the developer); and
- b. There are reasons of public health or public safety; or
- c. There are benefits of primary importance to the environment; or
- d. There are imperative reasons of overriding public interest.

These are considered to have been met by virtue of the assessments carried out under the Habitats Regulations and also the comments set out above by Natural England and the RSPB.

IMPACT ON WATER QUALITY:

Arun District Local Plan Policy GEN23 “The Water Environment” states that:

“Development will not be permitted if it would have a direct or indirect unacceptable adverse impact on the water environment, notably in relation to rivers, ponds, wetlands, public access in river corridors and water related recreation. Where appropriate, the Council will support initiatives which seek to restore or enhance the water environment”

The EA stated no works should be undertaken during the bathing season (15th May to end of September) in order to prevent sediment from dispersing into bathing waters off Pagham Beach.

This did initially create a conflict with the applicant as they wished to start before the end of the bathing water season. However, further negotiation with the EA has allowed for a revised condition to be proposed which allows for some work to take place towards the end of the bathing season provided that mitigation measures are agreed. It is considered that this resolves the concern and as such, the proposal is in accordance with this policy.

COASTAL EROSION & FLOOD RISK:

Adopted Local Plan Policy GEN19 “Coast Protection and Sea Defence Works” states that:

“Proposals for coast protection and sea defence works or improvements to existing works will be considered in the light of the following:

- (i) the recommendations of the shoreline management plan and the coastal defence strategies in respect of the physical maintenance of the coastline and coastal defences;*
- (ii) their impact on the visual character of the open, undeveloped coast and on the appearance and use of the coastline in the built-up areas; and*
- (iii) that the proposed method of coastal defence is technically sound and appropriate to the task.”*

Furthermore, Emerging Local Plan contains Policy W DM4 states that:

“Proposals for coast protection and sea defence works will be permitted if they:

- a. Have been considered in light of their impact on the visual character and value of the open, undeveloped coast, protection and enhancement of coastal habitats and the provision of opportunities to complete the coastal footpath and improve the appearance and use of the coastline in the built-up areas.*
- b. Use methods of coastal defence that are technically sound and appropriate to the task and do not have a detrimental effect on other parts of the coastline; and*
- c. Are in accordance with the Shoreline Management Plan or Strategy for the particular frontage.*

Proposals for development in coastal locations, including for example, sea defence works, will be permitted providing they protect and enhance coastal habitats such as vegetated shingle. Where habitats are lost through the provision of sea defence works, replacement habitats must be provided in a suitable location.

Any works under this policy should take account of any local and/or interest features.

Developments shall also be consistent with all other Local Plan policies.”

The proposal has been designed to improve an existing coastal erosion situation and ensure the protection of homes and businesses from the effects of coastal erosion and associated coastal flooding.

The Council's Coastal Engineer has stated that there are doubts as to whether the scheme will deliver its aims in the period stated and is not certain what effect this artificial breach will have on the existing spit or the sediment movements/deposits within the harbour. Ultimately, no objection is made to the scheme and the Engineer states that *"cutting the spit will have the desired effect of relieving the scouring effect from in front of the residential area of Pagham Beach"*.

The Shoreline Management Plan supports intervention at this location to achieve the objective of holding the line of Pagham Beach. The proposal is broadly in line with the option of adaptive management set out within the Pagham to East Head Coastal Defence Strategy 2010.

The impact of the proposal on the character and appearance of the area is discussed separately below.

ARCHAEOLOGY & HERITAGE:

The proposal not only affects the biodiversity of the Harbour but also has the potential to impact upon the archaeology present in the area.

Adopted Local Plan Policy AREA17 states that:

"Permission will not be granted for development that would be harmful to the significant archaeological interest of a site. Where the presence of archaeological remains is known or suspected:

- (i) the applicant must arrange for archaeological assessment of the site to be carried out before the planning application is determined;*
- (ii) where the assessment shows that the physical preservation of remains in situ is not justified, conditions may be attached to any permission granted that development will not take place until provision has been made by the developer for a programme of archaeological investigation and recording. The programme will be carried out prior to the commencement of the development; and*
- (iii) whenever practicable, opportunities should be taken for the enhancement and interpretation of archaeological remains left in situ."*

The most recent consultation advice from Heritage England (HE) states the development has the potential to cause harm to undesignated and previously unidentified heritage assets. HE considers that the development has the potential to cause harm during the construction of the Little Tern habitat and also (but only if sheet piling is to be used), during the construction of the access causeway. HE recommends that further investigation and field surveys are carried out to ensure that the archaeological and historical interest of the site is

safeguarded and recorded, to comply with the NPPF. However, HE considers that this can be achieved through a planning condition.

It is considered acceptable to grant permission subject to the works required by the condition. Furthermore, there are significant public interest reasons for this planning application and these are considered to outweigh the potential harm to archaeology.

CHARACTER & APPEARANCE:

The proposal will alter the character and appearance of the Harbour by altering the appearance of the spit and by the creation of the new island. However, this is a naturally changing environment, and although the alterations will occur quicker than natural changes might, the effect is the same. As noted above, the spit has continued to evolve during the application process and has recently breached itself. Furthermore, the proposed island will have a positive impact in terms of habitat for protected species and will add to the visual interest of the Harbour.

The application proposes the continued management of the breach including works to keep it open in order to avoid the Harbour being cut off from the sea. Should further breaches be needed then again, this will alter the character of the spit. These changes will follow an existing change and it is not considered that subsequent re-openings will be harmful to the character of this changeable environment.

There will be a temporary impact on the character/appearance of the area during the construction phase. However, (a) this will be temporary; and (b) should be balanced against the potential reduction in construction activities elsewhere on the beach (i.e. works currently ongoing on Pagham Beach).

NOISE & AIR POLLUTION:

The construction phase has the potential to result in adverse impacts in respect of noise and airborne pollution (such as dust). These impacts will be localised to the spit and will be temporary (the construction period is stated to be 8-11 weeks). As the spit itself is well away from residential properties, it is not considered that these impacts will result in any harm to amenity of residents. It is clear from the representations that the local community support the works and are unlikely to be concerned with temporary construction impacts. A Construction Management Plan condition will help to mitigate some of the impacts associated with construction.

OTHER LOCAL AMENITY ISSUES:

In respect of other amenity issues, it is noted that the location of the works are a considerable distance from the closest residential properties such that there will be no impact on such properties. Although construction activities will affect enjoyment of the area by local people (in terms of recreation), the construction period will be temporary and there will be no permanent or long lasting impacts.

The creation of the Little Tern Island will detach an existing piece of land from the spit and will deter people from accessing this site but this is in the interest of nature conservation and it is not considered that this small loss of access will adversely affect people's experiences and enjoyment of the Harbour.

Notwithstanding the above, the main amenity impact that will arise from this proposal is a positive one in that the scheme will help to protect homes and businesses.

TRAFFIC & TRANSPORT:

A further impact associated with the construction phases concerns the need to transport plant, equipment, supplies and workers to the site. This involves the need to use quiet private roads and there is the potential for traffic congestion and/or safety issues to occur. This will only be for a temporary period and the impacts of this can be managed through a Construction Management Plan condition as requested by WSCC Highways. It should be noted that roads through the private estate are largely in a poor state of repair (potholed) and as such, vehicles will have to drive slowly.

CONTINUED MAINTENANCE:

The Appropriate Assessment undertaken under the Habitats Regulations took account of several mitigation measures that had been proposed. One of these was the offer by the applicant of re-opening of the breach if required. This enabled the Council to be able to reject "maintaining the natural breach" option as a potentially better alternative because if the Harbour closes within 5 years as a result of the project breach, a mechanism can be put in place to ensure that there is funding available to re-open it.

Natural England (NE) has stated that:

"ABPmer's approach is based on the premise that in 8-10 years the initial breach form will not be present as the severed material will have been worked away by coastal processes. However, we would consider regardless of the timeframe for the conditions any subsequent management of the spit in relation to this application to maintain a harbour opening should still require formal sign off by ADC/CDC who should consult with NE to ensure that it is appropriate, as this requirement is for conservation interest of the harbour only."

And that:

"The only acceptable reason and stated reason in the application for reopening the breach is if the harbour mouth blocks itself following the cutting of the artificial breach. This is to ensure a regular tidal inundation of the intertidal SPA \ SSSI \ MCZ. It is a condition associated with Habitats Regulations compliancy and this needs to be recognised. This rationale should be made clear in the associated planning conditions thus avoiding the risk of it being done for other purposes and keeping the channel fixed in situ which is not what the application proposed."

It is important that the harbour does not close as a result of the proposed cutting of the spit as this would be detrimental to the natural environment of the harbour (and the interest features of the SSSI/MCZ and SPA). NE would only want the harbour opening to be maintained if it were to close as a direct result of the artificial actions to the spit. If the harbour closes naturally this should be allowed to occur as it would be as a result of natural processes.

Initially the applicant proposed one additional future operation should the need arise to reopen the breach to keep the harbour open. In the 'Further Information' document submitted in May 2016, it was proposed that a stakeholder group be created to "... advise on whether there is a need for any post-construction shingle excavation/recycling work to maintain the breach open." This would, subject to funding, allow for repeated work over an 8-10 year period to mitigate this potential effect.

It was originally proposed that the Marine Management Licence would grant consent for works for a 15 year period up to 2030. However, in December 2016, the applicant requested that a 5 year period be granted instead. This was on the basis of the degree of change to the site's morphology and the 'damage' already imposed by nature on the tern breeding habitats. The MMO licence will therefore now last for 5 years.

Further advice was sought from Natural England and they responded to state that:

"As ABPmer now advise, there have been changes to this site resulting from the natural breach. These changes mean that the greater part of the recently accreted spit is already detached and is moving eastwards, under coastal processes, towards the Pagham frontage. As the natural breach has accelerated the process originally predicted, we consider that a reduction in the timescale needed to address the potential for harbour mouth closure is now appropriate. We are happy therefore to support ABPmer's proposal for a change of the 15 year period to 5 years for this aspect of the proposal. Our assumption is that this 5 year timescale would commence once the works to breach the spit had been completed."

It is important to ensure that any planning permission is in line with the licence to be granted by the Marine Management Organisation (MMO). Natural England has previously advised that the time period condition should be consistent between Authorities. It is therefore proposed to allow the applicant to perform maintenance activities on the harbour opening (subject to the above considerations) within a 5 year period.

Although the effect of this period could be that there are longer term impacts on the environment, it is considered that these impacts will be temporary in nature (e.g. construction activities) and also localised to the area of the breach itself.

Although it would appear to be unlikely that the result of the cutting of the breach will be that the harbour closes during the latter stages of the 5 year permission, it is necessary to ensure that the applicant has the financial ability to carry out these works throughout the 5 year period. If the applicant was unable to pay for future maintenance then this could result in significant and adverse impacts on the environment of the Harbour.

The Council therefore asked the applicants in mid-August 2016 to consider their options for guaranteeing that funding would be in place to reopen the harbour, should the Stakeholder Group determine it necessary to do so.

Extensive negotiation has followed and a number of options proposed to the applicants have been discounted for various reasons. In short, the applicants have had no interest from any insurance companies, have had no interest from any potential guarantors and could not agree to make a formal Parish Council Resolution to guarantee future funding for the maintenance. A number of other options also had to be discounted because the applicants are not able to enter into a S.106 legal agreement due to them not having any interest in the land (the site is part owned by the Crown and part unregistered).

In addition, it is not possible to secure the guarantee through a planning condition as a planning condition cannot legally require the transfer of an amount of money to the local planning authority or to a third party. The applicants have now proposed a solution which the Council is inclined to accept. The Pagham Flood Defence Trust received a donation of £50,000 and has voted to deposit this sum into an account and guarantee it for 5 years to provide the funding necessary to reopen the Harbour if it determined to be necessary.

The donation of £50,000 accords with a proposal put from the applicant's agent to Natural England in a letter dated 1st December 2016 which stated that £10,000 a year would be set aside for a 5 year period for management & mitigation works:

"Although ABPmer are not actively involved in preparing the costs for this project we understand that the 'construction' costs are now projected to be in the region of £400, 000 (still to be secured in full from the community and private funds) and could perhaps be lower. These costs are much smaller than the £1-2 million for breaching the spit that has been envisaged in the past and also smaller than the £700, 000 that was identified during the Environmental Impact Assessment process. We also understand that Pagham Parish Council will thereafter be able to set aside around £10,000/year thereafter for management and mitigation works."

It should be noted that the applicant's agent wrote to the Council on the 18th of April 2017 to request that the applicant name be changed from Pagham Parish Council (PPC) to Pagham Flood Defence Community Interest Company (PFDCIC). The PFDCIC was set up on the 5th April 2017 to act on behalf of the Pagham Flood Defence Trust which is a registered charity. This change was proposed because PPC were not able to provide a Council resolution, could not agree any amounts of money at any time and could not guarantee any money would be in place for the future. The PFDT and the associated PFDCIC were set up specifically for the matters under the planning application and it was considered that they would be best placed to take the application forward.

In order to recommend the application for approval, the Council needs to be satisfied that it can lawfully conclude that there are no other alternatives to the proposal (as per the Habitat Regulations Assessment) if there is no formal guarantee in place. The Council has obtained legal advice and this supports the view that that it is entirely rational to rely on the

letter from the Pagham Flood Defence Trust (PFDT), so far as it goes, even though it is not an enforceable guarantee that the funds will be available at a particular time. This is because the Council has exhausted all other potentially stronger options and the letter from PFDT gives a "reasonable degree of assurance" that the funds will be available, if required.

SUMMARY:

The proposal does not accord with the adopted Local Plan in respect of the principle of development. However, it is considered that regard should be had to the emerging Arun Local Plan which allows development in the countryside where it is in accordance with other policies in the Plan (such as Policy W DM4)

In terms of the National Planning Policy Framework (NPPF), there is no presumption in favour of sustainable development in this case as the development requires assessment under the Habitats Directive. However, this assessment has been completed and it concludes that the application does not need to be refused and can proceed to a planning determination. This is subject to planning conditions setting out mitigation measures and also subject to referral to the Secretary of State so that he can decide whether or not to call the application in.

The above planning assessment considered the impacts of the proposal on the biodiversity of the harbour environment (i.e. the impact on the Site of Special Scientific Interest or SSSI), on the historic environment, on coastal erosion/flood risk, on the character of the area, on local water quality and on the amenity of the local community.

It was not considered that any of these impacts were unacceptable or could not otherwise be overcome through appropriate mitigation measures. It was noted there would be significant positive benefits to the local community in terms of coastal protection and reduced flood risk; and that the adverse impacts would, in general, be apparent only for a temporary period (i.e. construction period).

It is therefore considered that planning permission should be granted subject to the following conditions and subject to a section 106 legal agreement.

REFERRAL TO THE SECRETARY OF STATE

In accordance with regulation 62(5) of the Habitats Regulations 2010, it was necessary to refer the Council's proposed decision to the Secretary of State for his approval. This process commenced on the 9th of May 2017. The Secretary of State responded by letter on 22 June 2017 to give his approval. The content of the Secretary of State's letter is provided in full on the Council's website but the letter's concluding paragraph is provided here for information:

"The Secretary of State has undertaken a comprehensive assessment of the flood prevention and anti-erosion measures at Pagham Harbour and beach and considered evidence submitted by the competent authorities including the MMO and statutory agencies to ensure that the project complies with the tests in the Habitats Regulations. He considers that a rigorous case has been made to demonstrate that there is no current

alternative solution and that the proposal has IROPI. He is also satisfied that satisfactory compensation measures are in place and will be delivered by the planning conditions to ensure that the coherence of the network of SPAs and SACs known as Natura 2000 will be protected. The Secretary of State concludes that the tests in the Habitats Regulations 2010 have been fully met and that the applications are, therefore, returned to ADC and CDC for determination.”

HUMAN RIGHTS

The Council in making a decision should be aware of and take into account any implications that may arise from the Human Rights Act 1998. Under the Act, it is unlawful for a public authority such as Arun District Council to act in a manner which is incompatible with the European Convention on Human Rights.

Consideration has been specifically given to Article 8 (right to respect private and family life) and Article 1 of the First Protocol (protection of property). It is not considered that the recommendation for approval of the grant of permission in this case interferes disproportionately with any local residents' right to respect for their private and family life and home. Indeed, it is considered that the approval will ultimately have a very positive impact on local residents in terms of the future protection of their homes, businesses and lives. The Council is also permitted to control the use of land & property in accordance with the general interest and the recommendation for approval is considered to be a proportionate response to the submitted application based on the considerations set out in this report.

EQUALITIES

Duty under the Equalities Act 2010 (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation).

The proposal would have a neutral impact on the protected characteristics

RECOMMENDATION

APPROVE CONDITIONALLY