



Killingholme Haven Pits Nature Reserve

1: General Information

Status

The pits were notified as North Killingholme Haven Pits Site of Special Scientific Interest (SSSI) on the 15th October 1996.

Locality

The nature reserve is situated on the inland side of the Humber sea wall to the south of Haven Road on the approach to North Killingholme Haven three miles north-west of Immingham Docks.

Description

The reserve consists of a complex of flooded clay extraction pits with fringing reedbeds, rough grassland and scrub. There is a range of saline lagoon and freshwater habitats which support a diverse fauna, including several scarce and endangered invertebrates. A total of nine species of specialist lagoon species have been recorded from the pits of which one, the polychaete worm *Alkmaria romijni*, is known from just four sites in Great Britain. Other notable species include the prawn *Palaemonetes varians*, the molluscs *Hydrobia ventrosa* and *Hydrobia negelecta* and bryozoan *Conopium seurati*. The number of lagoon species is exceptionally high in these pits for their particular latitude.

Islands and promontories in the two larger lagoons, together with controlled water-levels providing shallow water and muddy margins, attract a variety and good numbers of waders and wildfowl. Amongst these are nationally important numbers of black-tailed godwits, which have visited the site in increasing numbers since the late 1980s. Most of the waders which frequent the site now use it principally as a high tide roost with some remaining throughout the tidal cycles. The SSSI citation for the site states 'The main reasons for notification of these pits are their importance as large saline lagoons with an exceptionally rich fauna, and their significance as roosting and feeding grounds for waterfowl, which occur in internationally important numbers in the Humber Estuary in winter.'

Access

Public access is along Haven Road in addition to which a public footpath follows the concrete sea wall to the east of the pits. There is a bird hide from which the largest pit can be viewed.

Type of holding

Leasehold - Killingholme Haven Pits Nature Reserve has been managed by the Lincolnshire Wildlife Trust since 1979 under a management agreement with the land owners, originally Central Electricity Generating Board (CEGB), now Able UK.

2: Past history and management

The Immingham to Goxhill light railway, which cuts across the Killingholme grazing marshes, was constructed in the early 1900s, opening in 1910. This in turn led to the opening up of a number of tile and brick-making yards around the south bank of the Humber Estuary. The pits at North Killingholme Haven were excavated between 1910 and 1936 following which they were flooded with estuarine water and left virtually unaltered for a period of seventeen years. The east coast floods of the night of 31st January to 1st February 1953 inundated a large area of the Humber coastal marshes as far west as Rosper Road and presumably engulfed the pits. Construction of a new sea wall followed in 1954 with further modifications and strengthening taking place in the

1970s. Water depth during this period was relatively high and colonisation by peripheral vegetation was minimal.

During the autumn of 1968, in an attempt to make the pits attractive to wading birds, the water levels were lowered, via the existing sluices, by a group of local ornithologists. The results were spectacular with, for instance, a peak of 18 wood sandpipers (a scarce county species) on 10th August and also large numbers of other species being attracted to the newly exposed muddy margins. From 1968 the water level in the pits was controlled annually via the sluice system. In general, water levels were lowered during April to October, being raised again in November and left high through to the following March. By the early 1980s however, the sluice system became less efficient and the control over water levels more haphazard and uncontrollable. Hence occasional long spells of dry weather resulted in considerable drying out of areas of exposed mud while in wet times the water levels remained deep for long periods. Control over tidal incursions also became impossible.

In 1979 the Lincolnshire Trust for Nature Conservation entered into a management agreement with the then owners CEGB to manage the pits complex for the benefit of its wildlife. Since then the reserve has been managed by volunteer wardens in such a way as to attract wading birds primarily through the management of water levels.

Illegal shooting on the area of foreshore in particular, but also in the pits themselves, was a serious problem in the past but action by the Trust in co-operation with the owners, National Power, led to a court case in 1996 which led to complete cessation of this problem in the 1996-7 winter.

3: Management Rationale

Water level management

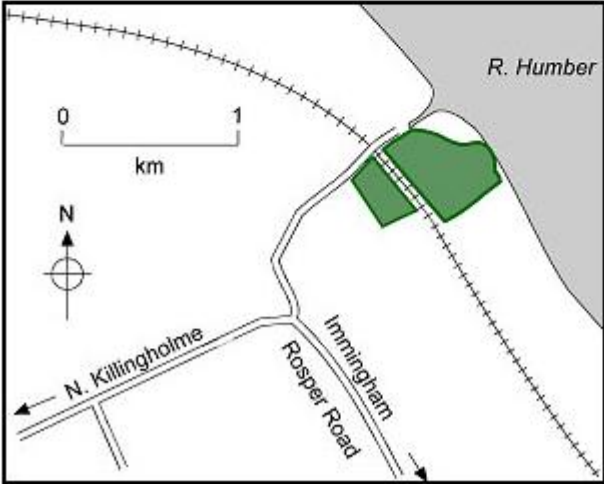
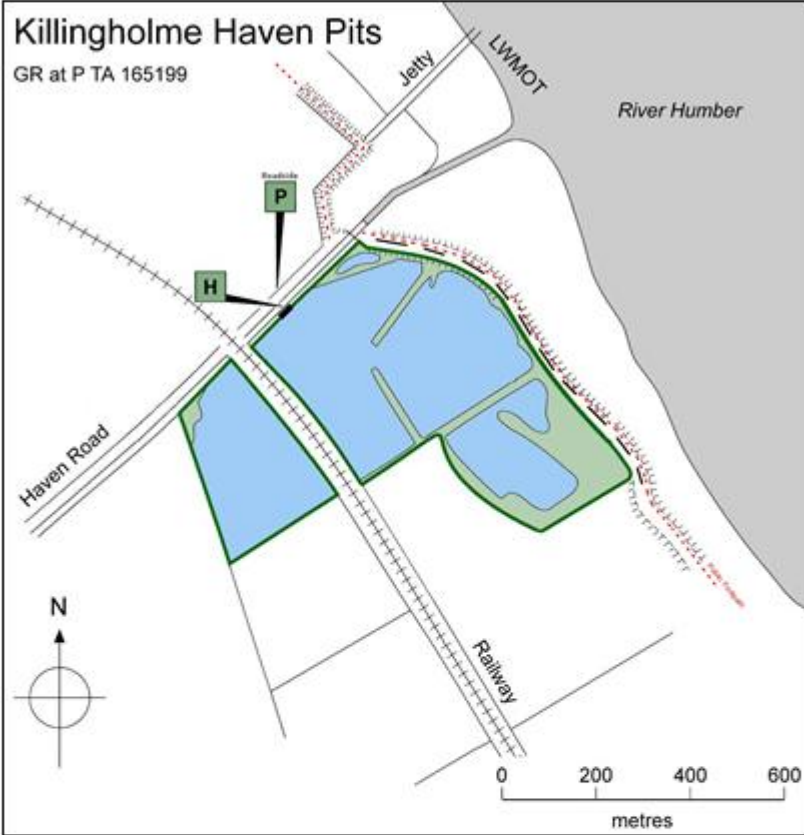
Management at the site has focused primarily on management of the water levels through the opening and closing of a manually operated sluice at North Killingholme Haven which allows water into and out of the largest lagoon under a controlled regime (subject to tides). The aim has been to sustain optimum conditions for waders and other species by maintaining a mosaic of shallow water and soft muddy margins. Water levels are therefore generally kept low at peak wader passage times from April to late May and mid-July to mid to late October to expose a mud margin. Within this period an essential oscillating water level is maintained through the tidal cycles with influxes of water on tides followed by gradual lowering of water levels to reveal an increasing area of soft mud. It is necessary to maintain a regular influx of water from the Humber Estuary to enhance the invertebrate community and to prevent exposed areas of mud from drying out. Winter levels are significantly higher to assist in controlling encroaching vegetation and to revive the condition of shallow muddy areas following autumn draw down. The water level is raised during June and early July to revitalise the mud in preparation for the autumn period.

Island management

Management of islands has involved reshaping the islands and removing vegetation to provide suitable and safe roosting sites for waders in the winter and nesting sites for species such as avocet in the breeding season.

Elizabeth Biott
Lincolnshire Wildlife Trust
16 September 2012

Killingholme Haven Pits



P = Parking space **H** = Bird Hide **E** = Entrance

Advice from Natural England and RSPB on suitable buffers for SPA and Ramsar waterbird mitigation areas within the South Humber Gateway.

Introduction

As reported in Cruickshanks *et al* 2010 “Disturbance to birds is a complex issue, as it can result in a range of impacts, most of which involve a change in behaviour by the birds (such as birds flying away from particular areas). It is very difficult to interpret such behavioural responses in terms of their population context and a range of other factors (such as prey abundance) will interact to determine whether there are real consequences of disturbance at a population scale. The issue is particularly complex on the Humber, a large estuary system, where a range of factors may affect the birds”.

The effect of disturbance on birds is often measured as an escape flight distance, the distance at which birds take flight from a disturbance source. However, the reaction of waterbirds to disturbance, ranges from no observable response to escape flight with intermediate reactions such as increased heart rate, increased alertness, and walking or swimming away from the source of disturbance. All of these reactions can lead to increased energy expenditure as well as reduced food intake which may have an effect at an individual and population level, especially during times of severe weather when birds may be less able to meet their energy requirements. Similarly, the disturbance period, or the period of time it takes for a flock of birds to resume its activities prior to the disturbance, varies according to species, the nature of the disturbance and the degree to which birds are habituated.

IECS’s disturbance report (2008) refers to a zone of effect “The extent of this zone of impact will depend on a series of factors including the composition of the waterfowl species assemblage present and the type(s) of avifaunal activity in the area and existing habituation levels, as well as the type and ‘size’ of the stimuli, together with other exogenic abiotic factors such as the morphology of the area, time of year and weather conditions”. Steve Percival’s report to Able (2010) refers to the distance over which disturbance effects can operate “It is generally accepted that greatest distance in a terrestrial situation for any species is 800m (and more usually 600m is taken as a worst case)”.

IECS also state “The distance at which birds will initiate flight in response to a disturbance event varies interspecifically with some species, independent of site, with some reacting more strongly than others. The Sanderling (*Calidris alba*) for example show 100% response to humans when they are 30m or closer, this distance will be further for larger species such as the Curlew (*Numenius arquata*). On the strength of this assessment, set-back distances and other conservation tools should thus be set to the most sensitive of species with larger species in general having greater alert distances (Blumstein *et al.*, 2005)”.

With all these variables to consider, as reported in Steve Percival’s report to Able UK (March 2010), buffer zones “have usually resulted from situations that have required a pragmatic approach to solve an immediate problem rather than detailed long-term studies of the impacts and their ecological consequences.....The size of buffers, unsurprisingly, varies considerably”.

We understand that there is limited evidence that considers the effects of construction disturbance and port-related activities on the species of waterbirds that are affected by the proposed development of the South Humber Gateway. However, there are considerably more references

available on the impacts of other human activities, and several European marine site management schemes have recently undertaken studies of recreational disturbance; therefore it is predominately from recreational studies that evidence has been taken. Escape flight distances have often been taken as the 'measure' of disturbance in these studies as a flight response is easier to measure than raised heart rate or increased vigilance. It is important to note the limitations of measuring the effect of disturbance based on flight alone as birds may suffer adverse effects at much greater distances than those at which they take flight. Importantly, birds which have no alternative feeding areas, or cannot risk increased energy expenditure through flight, will show shorter escape flight distances. This does not mean that they are less affected by disturbance but instead indicates a trade-off between suffering the consequences of disturbance (raised stress levels, reduced food intake rates) against flying elsewhere (increase energy expenditure and increased competition for food at alternative locations).

There is no single escape flight distance that can be given for any species, but from the observed disturbance distances in the literature, it can be seen that these vary considerably. There is evidence to suggest that distances increase as body mass increases; therefore species such as curlew will have greater escape flight distances than smaller waders (Laursen *et al*, 2005).

Disturbance distances for the species for which mitigation areas are primarily required:

Curlew

Goss-Custard (2005) looked at curlew and how they may be disturbed by activities on a seawall (in relation to a footpath and cycleway). His findings experimentally were that when persons were active and visible, the feeding curlew flew at a distance of 200m from the source of disturbance. When people were screened, the disturbance distance was reduced. Goss-Custard (2003) calculated that the probability of causing a flight response in feeding curlew was 75% at 100m, 40% at 150m and 10% at 200m (as quoted in Goss-Custard 2005). In his review of the literature, Goss-Custard (2005) found that the disturbance distance for feeding curlew were reported to be 174m (sd 93.9m) and for roosting birds it was 142m (sd 43.8m).

Burton *et al* 2002a described the effects of man-made landscape features on birds. They reported that curlew numbers were reduced on mudflats within 200m of a footpath. Smit and Visser (1993) noted various escape flight distances for a number of different studies on different disturbance factors. For walkers, studies varied between a mean of almost 100m on Terschelling to 211m on the Dutch Delta area and 339m on the Wadden Sea. This review also reports escape flight distances of 188m from cars. Laursen *et al* (2005) also on the Wadden Sea identified 300m as the minimum flushing distance for curlew. The IECS Humber disturbance report refers to curlew as "a large bird with the greatest alert distance" and recommends a buffer of 275m for curlew based on flight distances from a review of disturbance effects. The English Nature Research Report (2000) assessed that the requirements for curlew were open views greater than 200m. On mudflats, Burton *et al* (2002b) notes that curlew numbers and density were reduced on areas where construction activity took place though the precise distance wasn't given; these areas were up to 300m from the activity.

We acknowledge that survey work undertaken through Humber INCA has shown that curlew are utilising smaller fields within the South Humber Gateway and this may appear to be contrary to some of these references. However, as acknowledged within the Mott MacDonald report "the field

size data are based on mapped field boundaries rather than actual boundaries, which may include ditches as well as enclosing hedgerows. Fields with open boundaries will be perceived as larger....” In addition, whilst curlew may also be utilising fields which are actually small in size, these are currently set within a wide, open landscape of available fields that the birds can move to if disturbed. Once the South Humber Gateway is developed, the mitigation areas will be largely surrounded by built development and operational activities. As the only fields left available they must be able to provide the necessary ecological function for SPA and Ramsar waterbirds at all times and be free from significant disturbance.

Lapwing and Golden Plover

With regards to golden plover, there is a large volume of literature on impacts of disturbance to breeding birds but little work on wintering birds on estuaries. For feeding golden plover and lapwing, the flight distance from disturbance was found to be around 100m for single species flocks but when other species were present, especially black-headed gulls; this was increased to 150m, with some to 200m (Barnard & Thompson 1985). Other assessments (ENRR 2000) assessed that golden plover require open views greater than 200m, while for lapwing areas with unrestricted views over 500m are required. The IECS Humber disturbance report assesses golden plover to demonstrate high sensitivity during winter and autumn passage.

Milsom *et al.* 1998 states “To optimise the value of grass fields as feeding areas for plovers and other waders, considerable attention needs to be paid to effects of landscape factors and sources of human disturbance when selecting fields... In general, larger fields will be used more frequently, and by greater numbers of birds, than smaller ones...” and “The attractiveness of fields to waders will be enhanced if they are situated away from sources of frequent human disturbance, particularly roads”. Also, “Field location in relation to the sea is also important, especially for intertidal species: fields situated within 0.5km of the sea will tend to be more attractive to waders than those located further away”.

Conclusion

As can be seen from the references, the reaction of birds to different disturbance events can vary significantly and it is therefore not possible to provide strict guidance on disturbance distances. Instead, the references have been used to enable Natural England (and the RSPB) to give advice on the practical application of buffers¹ that will ensure the South Humber Gateway mitigation areas provide sufficient ecological function to mitigate for the loss of the surrounding land. We believe that the proposed buffer of 150m is the minimum that should be considered in a situation where the adjacent land use is unsecured.

¹ Buffer in this context refers to wet grassland optimally managed for non-breeding waterbirds including curlew, golden plover and lapwing

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South Humber Gateway Conservation Mitigation Strategy Delivery Plan

Aligning industrial development and the EU Birds and Habitats Directives

1. Moving Forward

Work on developing a conservation mitigation strategy to assist industrial development in the South Humber Gateway has been underway for some time. It has been agreed by key stakeholders that a strategic approach to providing mitigation for any impacts upon the birds which use the estuary would be the most effective way of meeting the requirements of the The Conservation of Habitats and Species Regulations 2010 (SI No. 490) (commonly referred to as the Habitats Regulations and referred to as such throughout this document) and would reduce the risk of one development creating problems for others. It must be stressed that this work can only address the needs of birds covered by the EU Birds Directive and included in the Special Protection Area and does not meet all the requirements of the Habitat Regulations with regard to protected species and habitats. Considerable investment from North Lincolnshire Council (NLC), North East Lincolnshire Council (NELC) and Yorkshire Forward (YF) has gone into the work required to prepare a strategic approach and work has started on gaining industry and developers' support for the work. This document was commissioned by NLC but is designed to serve the needs of both Councils.

Much has been discussed and written about a mitigation strategy; this document builds on the work done to date, including the Draft Delivery Plan (1) and ecological notes and targets prepared by Natural England and RSPB (2) and describes what a mitigation strategy could look like, how it may be delivered and what remains to be done to achieve it. The work has been aided by the development of a Memorandum of Understanding (3) between the key parties who have agreed to work together constructively to develop and deliver the strategy. This document takes the work forward by setting out a Delivery Plan which identifies the work that needs to be done and the key players required to achieve it. In addition to setting out the work required to establish the requirements of a mitigation strategy and the actions to deliver it, this Delivery Plan also supports both NLC and NELC in producing their respective LDFs and will form part of the relevant evidence base for the development plans. This document and successive versions of it give details of the delivery of the work will be included within the evidence base for LDFs as the planning process progresses.

2. Strategic Modules

A successful strategy needs a number of components if it is to be capable of being delivered to the benefit of industry and the environment. What is clear is that these components will include ecological, legal, financial and planning aspects as well as the delivery of habitat on the ground:-

- **Ecological functioning** – the strategy must be able to deliver the ecological functions required in and around the NELC and NLC areas of the Humber Estuary to maintain or improve the status of the SPA and Ramsar bird populations
- **Habitats and Birds Directives** – the strategy must be able to satisfy the legal requirements of the two Directives within the domestic legislative framework, the Habitats Regulations 2010
- **Planning regimes** – the strategy must help the development and delivery of planning documents and including the Local Development Frameworks for NLC and NELC. As the work progresses it will also be applied to the preparation of Site Allocation documents
- **Industry support** –the strategy must have the support of industrial developers and landowners with a clear understanding of the benefits as well as costs
- **Financial aspects** – public bodies have invested in the development of the strategy but beneficiaries will need to ensure its continuance and delivery
- **Management** – in addition to finding acceptable areas where mitigation work could be carried out, there is a need to determine how the mitigation areas will be maintained and managed in perpetuity to secure their value in meeting the requirements of the Habitats Regulations.
- **Data management and monitoring** – there is a need to make sure that ecological data remains current and that it is made available to inform environmental assessments which are required for development and planning processes.

2.1 Ecological Functioning

Work done by NE and RSPB indicates that for a strategy to be successful, mitigation needs to be created in such a way that birds have areas in the SHG where they can loaf, roost and forage on high tides. NE and RSPB have determined that, for mitigation to be successful in ecological terms, there need to be a minimum of 4 independently functioning blocks of 50 ha each within the SHG (commonly referred to as 'stepping stones') and a substantial area for mitigation outside the SHG (of a size yet to be agreed), rather than a single site. NE and RSPB have indicated that these sites will be required to accommodate any uncertainty around the birds' requirements and any lack of understanding of bird behaviour. However, future monitoring of the mitigation areas will be essential to demonstrate they are functioning and how adequately they meet the Habitats Regulations requirements. It is also accepted that these sites will need appropriate management regimes and that their ecological value must be maintained in perpetuity.

It has been agreed that the work to identify such sites will be undertaken by an **Ecology Working Party (EWP)** comprising **Peter Barham, Darren Clarke, Harriet Dennison, Bernie Fleming, Caroline Steel, Gordon Kell and Kate Walker and Andrew Taylor**. To cover the need to demonstrate that ecological features are fully covered in the Planning regimes for the two Local Authorities, NELC planning staff and Barrie Onions will join the working party as required. There may also be the need on occasion to include the Environment Agency.

Ecological Functioning Workplan

Objectives	Outputs	Timescale	Status
clarifying the ecological understanding necessary to meet the requirements of the birds for roosting and loafing in the SHG.	Clear statements on known bird requirements which would provide direction to planners and developers	End of Sept 2010	
determining the nature and shape of mitigation within the SHG	Parameters which can be used by developers and planners	End of Oct 2010	
demonstrating the evidence behind the reasoning on the ecological aspects of the strategy to assist developers and planners	Clear statements which could be used to support planning and development applications to ensure compliance with the Habitats Regulations	Nov 2010	
establishing the mechanisms for creating certainty about the extent of mitigation required for individual developments and the relationship between mitigation inside and outside the SHG	Clear guidance for developers and planners to prepare mitigation proposals to ensure compliance with the Habitats and Birds Directives	End of Nov 2010	
examining the potential to use the North Bank of the Humber as the strategy develops	A statement on whether the concept is worth pursuing.	End of August 2010	
resolving how previously developed mitigation habitat relates to the 'stepping stone' approach being developed	Clear statements which clarify the potential for existing mitigation to be considered as effective parts of the ecological functioning of the stepping stones	End of Aug 2010	

2.2 EU Habitats and Birds Directives. The Conservation of Habitats and Species Regulations 2010 (SI No. 490)

The EU Habitats and Birds Directives set out clear requirements for member states to designate areas of international importance for habitat threatened species and bird conservation. In addition to providing an ecologically functioning approach, the strategy must also be able to comply with the strict demands of the Habitats Regulations. Consequently, it has been agreed that industrial development would not create an adverse effect on the integrity of the Special Protection Area, as long as mitigation work is undertaken. Equally, it has been agreed that this mitigation can be applied strategically; however, to comply with the Directives fully it will be important that each individual development undertakes its own EIA and Appropriate Assessment and that the requirements for mitigation are assessed against what is delivered through the strategy. These assessments not only allow for an accurate account of the amount of mitigation land required for each development, but will also identify further issues which the mitigation strategy cannot resolve, such as addressing the needs of existing populations of protected species and other aspects which are looked at as part of any EIA.

The work in this section will be carried out alongside that in 2.1 and be done by the **Ecology Working Party**

EU Habitats and Birds Directives Workplan

Objectives	Outputs	Timescale	Status
ensuring that the requirements of the Directives are met within the Delivery Plan	Clear guidance that can be applied to ensure compliance with the Directives	End of Nov 2010	
ensuring that the ability to mitigate ahead of development is understood and agreed	Statements that clarify the legal requirements for Managing Natura 200	End of Nov 2010	
through monitoring, provide greater certainty that mitigation is effective and using this information to determine more objectively the extent of mitigation required for development	Monitoring results applied in an objective, quantifiable and agreed way	Ongoing	
establishing the mechanisms for creating certainty about the degree and extent of mitigation required for individual developments such that they can be confident in complying with the Habitat and Birds Directives	Clear statements which can be used by developers and planners to prepare mitigation for development and the production and acceptance of Appropriate Assessments where required	Dec 2010	
as the strategy progresses, identifying how much mitigation may be required outside the SHG in addition to the stepping stones	Interpretation of monitoring results which give clarity in the effectiveness of mitigation inside and outside the SHG	End of Oct 2010	
looking at other casework to see if there are lessons to be learnt eg Thames Basin and Dorset heaths work	The identification of approaches that have been successfully used elsewhere and which it can be agreed should be applicable in the SHG	Ongoing	

2.3 Planning Regimes

While it is acknowledged that there may be changes to planning processes as time progresses, it is also the case that whatever regimes are introduced there will be a need to ensure that Habitats Regulation Assessments are undertaken at all appropriate stages. Currently, the LDFs for the two Councils and the documents which support them, including the Core Strategies and Allocations DPD, all need to be assessed against the Habitats Directive (the exact nature of these requirements is currently being researched). Planners have already confirmed that the existence of the MoU allows Inspectors to know there is evidence that the requirements of the Directives are being met within strategic planning and the acceptance and subsequent delivery of the Mitigation Strategy will provide further evidence that this is the case. Both the MoU and this Delivery Plan have considerable value in this context as they mean that it will be easier to demonstrate to an Inspector that the potential impacts on the SPA and Ramsar site arising from the SHG Policies and Allocation can be adequately mitigated and that therefore the Policies and Allocations are deliverable. A strategic and collaborative approach should save considerable time and cost to the LAs and to the other regulators (such as NE) and NGOs (Lincolnshire Wildlife Trust and RSPB) in the medium to long term.

A meeting with NE and RSPB on 10 August 2010 provided an agreed approach for the Screening Report and the commissioning of a separate AA for the NELC and NLC Core Strategies. It was also agreed at the meeting by NE and RSPB that the mitigation strategy does not need to be completed at this stage to enable sufficient confidence for the Core strategy to proceed.

The work will be carried out by **Peter Barham, Liz Jerrold, Gordon Kell and Bernie Fleming.**

Planning Regimes Workplan

Objectives	Outputs	Timescale	Status
relating the continued development of the mitigation strategy to the timescales and outputs associated with the planning process for the two Councils. Ensuring that the needs of the Habitat Regulations in relation to the planning regimes for the two Councils	Clear understanding of the programme and timescales for planning Clear understanding of the role of the mitigation strategy at each stage Satisfactory Habitat Regulations Assessment for each stage	End of August 2010 Ongoing	

2.4 Acquisition of sites

Although some work remains to be done on the ecological aspects of the strategy and ensuring that they comply with the EU Directives, it is critical that work commences on identifying and acquiring land areas that could be used for mitigation immediately and that a timescale is set for the provision of mitigation sites. However, while public sector staff may help in the process, it is also increasingly likely that public sector organisations will not be able to contribute financially.

This work will be done by **Peter Barham, Darren Clarke, Gordon Kell and Kate Walker and Bernie Fleming.**

Acquisition of sites Workplan

Objectives	Outputs	Timescale	Status
working with landowners to volunteer potential mitigation areas	Areas of land which could be developed as mitigation	Ongoing	
examining the potential to use the agricultural subsidy system to identify and fund mitigation areas	Clarification whether agricultural subsidy system offers any assistance with developing mitigation	End of August	
examining methods of enabling land to be used – either through acquisition or agreement	Guidance to assist developers, planners and landowners	Ongoing	

2.5 Industry Support

The Mitigation Strategy summit meeting on May 17th helped to launch the strategy to potential developers and the summit also identified some of the key areas of work that need to be done to ensure buy in and confidence by developers (4).

This work will be done by **Peter Barham, Darren Clarke, Gordon Kell and Kate Walker**.

Industry Support Workplan

Objectives	Outputs	Timescale	Status
ensuring that industry and developers understand the full benefits of the strategy, how it can be applied and their part in its delivery in the coming months and years.	A practical manual setting out the reasoning and actions which industry can adopt and support and which HINCA can use to advise developers	Spring 2011	
working together to develop fair and equitable funding approaches as well ecological solutions	Agreed mechanisms which allow developers to use mitigation areas in clear objective ways	Ongoing	

2.6 Financial Aspects

The development of the Strategy to date has been largely funded and undertaken by public bodies to aid and accelerate development, but there is potential for funding from a number of sources both in the public and private sectors and also from the EU. There is also a real potential that Yorkshire Forward, or any organisation which replaces it, will fund the delivery of the first of the mitigation areas for use by developments, but the future delivery of the strategy will require industry to fund further mitigation areas. This process will involve developers providing mitigation which will be used strategically; in effect developer A will benefit from mitigation created by YF, but will pay for mitigation to be used by developer B and so on.

There is a potential to use ERDF money, but this will require match funding with the public or private sector. There is money available within ERDF budgets, but given the constraints on public sector finances, match funding will be needed from the private sector.

Work on finance aspects will be done by **Peter Barham, Phil Ashton, Gordon Kell and Sheryle Price-Jones with support from legal and financial services within the LAs**

Financial Aspects Workplan

Objectives	Outputs	Timescale	Status
look for funding opportunities in UK and EU and from private sector, including ERDF	Identified funding routes	End of Oct 2010	
need to establish the acceptability of this approach in legal and financial terms	Statements which can be used to accompany developments to demonstrate compliance with legal and financial regulations	End of Dec 2010	
establish the financial mechanisms for creating certainty about the degree and extent of mitigation required for individual developments.	Statement determining whether agreed mechanisms for managing the finances associated with developers contributions is achievable	End of Dec 2010	

2.7 Future Management

The mitigation areas constructed as part of the Mitigation Strategy will have legal obligations under the Habitats and Bird Directives. These will need to be enshrined in legal agreements and as conditions placed upon the developments which may need to be drawn up by specialist lawyers. In addition, the mitigation areas will need to be managed in ways which maintain or enhance their ability to support roosting and loafing estuary birds covered by the Directives in perpetuity. There is no agreement on who should undertake this work, but potential management scenarios will need to be examined, including the possibilities for funding support.

Work on this aspect will be done by **Local Authorities and the Ecology Working Party**

Future Management Workplan

Objectives	Outputs	Timescale	Status
establish both the legal and practical aspects of the management of the mitigation areas.	Clear guidance for use by developers, planners and regulators	End of Dec 2010	
developing land management agreements and the best way to manage the land for birds	Initial guidance on establishing agreements and land management	End of Dec 2010 and ongoing with monitoring	
examine the long term aspects of managing the 'stepping stones'	Set up a monitoring programme which assess the effectiveness of the work undertaken on the mitigation strategy	Ongoing	

2.8 Data management and Monitoring

The adequacy of existing monitoring information has been established through the Ecology Group and the information used to help identify future monitoring requirements. This has been presented in a document prepared by HINCA and is being used as the basis to secure the funding required for future survey work commencing in August 2010. Continuation of monitoring will be needed to ensure the data remain valid and up to date. How this will be done has yet to be agreed, but measures to implement it, through mechanisms such as planning conditions (eg S.106 agreements), must be sought in the short term to ensure that the data continuity is guaranteed.

HINCA and the Humber Ecological Data Centre will manage the work and the data which will be available to developers, their consultants and others in a consistent format, reducing the opportunity for inconsistent interpretation.

3. Moving Forward

To ensure that the considerable development opportunities within the SHG are taken up and to ensure that these are done cost-effectively and in environmentally sound ways, work on delivering the modules that comprise the mitigation strategy need to be moved forward without delay. Good co-operation exists between the organisations that have been involved in developing the strategy to date but much remains to be done and, as the strategy develops, other players need be involved and understand the benefits of the strategy. The best way of ensuring that all this happens is to see the ideas generated on the ecological requirements translated into reality on the ground and the acceptance and understanding by all that this can allow development to proceed.

It is also agreed that progress should be reviewed on a quarterly basis for each of the components by the work groups with reports back to the Mitigation and Ecology Groups and the SHG Board

REFERENCES

1. South Humber Gateway SPA Delivery Plan - Draft . September 2009. NLC
2. Final Draft of Bird Conservation Objectives. Natural England. To be confirmed
3. Memorandum of Understanding. SHG Mitigation Group. NLC. June 2010
4. Report of Summit Meeting May 17th 2010. June 2010. NLC

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The South Humber Gateway: a strategic approach to mitigate impacts on the Humber Estuary SPA and Ramsar waterbirds

Summary note provided by Natural England

There are a number of documents that discuss the provision of mitigation within the South Humber Gateway. In order to assist the panel, Natural England has put together this summary note and also attached a document setting out our advice on buffers, and the draft delivery plan put together by the SHG partners.

Background

- The Humber Estuary is constrained by flood defences and therefore at high tide much of the designated site is unavailable for birds and they move onto the adjacent land, which includes the South Humber Gateway.
- The South Humber Gateway (SHG) is an area of almost 1000ha of land earmarked for development in North and North East Lincolnshire. It does not include any intertidal habitat.
- As development proposals came forward within the SHG and developers undertook survey work to inform their Environmental Statements, it became clear that large numbers of Humber Estuary SPA and Ramsar waterbirds were utilising the SHG for roosting and foraging.
- The Habitats Regulations require an assessment to be made of the impact of proposed developments on the designated site and its interest features; therefore whilst the waterbirds are outwith the designated site boundary, they would clearly be affected if they were unable to utilise this adjacent land.
- The collection of data for individual developments was leading to delays in the planning process as each developer had to collect their own information and this needed to cover almost an entire year to provide coverage of the significant periods for the SPA and Ramsar waterbirds – winter, and autumn and spring passage. Therefore Natural England worked with the Humber Industry and Nature Conservation Association who contracted SPA/ Ramsar bird monitoring across the entire SHG. The collection of this monitoring data was funded by Yorkshire Forward and the local authorities. This resulted in a map showing the fields that were utilised by SPA/ Ramsar waterbirds, and the numbers and species of bird present (mainly curlew, lapwing and golden plover).

Natural England advice

- Based on the results of the monitoring work, Natural England (and the RSPB and Lincolnshire Wildlife Trust) advised that if the entire SHG was developed (as proposed in North and North East Lincolnshire core strategies) then in order to comply with the Habitats Regulations and avoid an adverse effect on site integrity, 4 x 50ha blocks of wet grassland would be required within the SHG. These areas should consist of a core area of sufficient size to support the SPA/ Ramsar waterbirds and be surrounded by a 150m buffer against disturbance where the adjacent land use is unsecured. The entire mitigation area should be optimally managed as wet grassland.

Current Status of the Strategic Mitigation Approach

- At the current time, North and North East Lincolnshire Councils do not agree with this advice and there is no strategic approach in place. Therefore as individual developments come forward, those with significant numbers of SPA/ Ramsar waterbirds have to provide onsite mitigation – areas of sufficiently sized managed wet grassland – to ensure that their development does not have an adverse effect on the site integrity of the Humber Estuary. Those developers with no SPA/ Ramsar waterbirds on their site can develop their entire development site.

Able Marine Energy Park

- AMEP lies entirely within the SHG and the undeveloped land supports significant numbers of SPA/ Ramsar waterbirds and therefore under the Habitats Regulations, mitigation is required.
- The strategic approach aims to deliver large scale mitigation for impacts on SPA/ Ramsar waterbirds within the SHG. It is based on ecological principles advised by Natural England, the RSPB and the Lincolnshire Wildlife Trust. Therefore, whilst AMEP does not need to 'comply' with the strategic approach because this is not yet agreed and there is nothing legal in place; Natural England's (and the RSPB's) advice for AMEP is consistent with these principles because the impacts and geographical location are the same.
- Natural England is committed to working with partner organisations to adopt a strategic approach to mitigation in the SHG and has expended significant time and staff resource to work with partners to facilitate a successful conclusion. In our view, the strategic approach is still an ideal opportunity to reduce costs and time constraints to developers, allowing large areas of land to be developed alongside large optimally functioning areas of waterbird mitigation. This will enable the development of the South Humber Gateway to comply with the Habitats Regulations. However, the strategic approach is not yet complete and therefore Natural England has given its advice to Able in the context of the principles that underpin the SHG work.

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