HOLME-NEXT-THE-SEA

NEIGHBOURHOOD PLAN 2016-2036

Environment Report: Designated Areas



Evidence Base: Research Report

19 March 2017

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1 Introduction

- 1.1. Measured by any standards the Parish of Holme next the Sea has an exceptional landscape, unusually high levels of biodiversity and remarkable wildlife. Its location, on the north east corner of the Wash facing the continent, makes it a key landfall site for migrating birds. The result is an environment of international significance. Each year the Norfolk Ornithologists Association (NOA) Annual Report provides counts of the astonishing range and numbers of migrant and native species seen at Holme. In the Neighbourhood Plan Questionnaire, Survey parishioners made it clear that they recognise the importance of Holme's environment and value it above all else. They expressed concern about the possible impacts of inappropriate development and made it clear that they want to see positive environmental management. Any plan for Holme must recognise this.
- 1.2. Not surprisingly, this environment is heavily protected and within the Parish there is an exceptionally large number of environmental designations. With some 42% of the Parish protected under International, EU and National law it is critical that the Neighbourhood Plan takes account of this and works in harmony with the objectives of the legislation. This point is reinforced by the importance that the Parish attaches to the environment.
- 1.3. This report aims to identify and review the various designations so that their significance can be understood and in order to inform the structure and policies of the Plan. Many of the designated areas overlap and have a degree of similarity in their objectives and this leads to some complexity in understanding and satisfying the demands of each (especially for developers). So a further aim is to understand the common ground between them and to try and use this as a simplified, common basis for approaching the environment in the Plan.
- 1.4. Whilst designations are clearly of major significance other aspects of the environment also need to be reviewed and considered in particular heritage assets and biodiversity. Neither of these relate to specifically identified areas but both are of great significance for the Parish and will be considered in separate reports.
- 1.5. Natural England, the Environment Agency and Historic England are the three statutory consultees for the plan. Much of the information presented here and used in the reports on heritage and biodiversity is based on pointers provided in their comments to the Neighbourhood Designation Consultation. All of the reports rely heavily on data provided through each of these organisations whose positive input is acknowledged.

2. Purpose of the report



2.1.1 Any plan developed for Holme next the Sea must take into account the very special nature of its natural environment. Like other villages along the North Norfolk Coast Holme is touching within distance of internationally significant conservation sites that are heavily protected by both EU and UK national legislation. In addition, it has areas covered by national and local designations (both statutory and non-statutory) which must also be considered in the planning process.

2.1.2 Whilst other settlements along the North Norfolk Coast also have close proximity to protected/designated sites, Holme is

relatively unusual because the form of the settlement is such that its northern extremity (Broadwater Road) is almost surrounded by European protected sites and the northern boundary of properties along the axis following Westgate and Kirkgate shares boundaries with them.

2.1.3 Regulation 9 of the Environmental Assessment of Plans and Programmes Regulations, (2004) requires that "Draft neighbourhood plan proposals should be assessed to determine whether the plan is likely to have significant environmental effects". This decision must be based on a 'screening assessment' of the likely impacts of the Plan and if significant impacts are identified then an 'Environmental Report' must be produced to "identify, describe and evaluate the effects on the environment" under Regulation 12 of the same document. The report must consider "..reasonable alternatives taking into account the objectives and the geographical scope of the plan".

2.1.4 In order to comply with this requirement the constraints placed on and opportunities for sustainable development in the Parish must be understood. As one element of this process, this report presents maps of the Parish showing the boundaries of the designated/protected areas and explains the reasoning behind their creation. It thus represents a key part of the evidence base for the plan and will inform an environmental screening exercise as described in point 3 above.

2.1.5 As NPPF 109 requires that "The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity
- where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"

It is also clear therefore that this evidence will form basic information for guiding sustainable development policy in the Neighbourhood plan.

2.1.6 It should be noted that the 2004 Regulations require that "(a) the Countryside Agency; (b) the Historic Buildings and Monuments Commission for England (English Heritage); (c) English Nature; and (d) the Environment Agency" are consultation bodies for the purposes of the Neighbourhood Plan. All have been informed that the Planning process has commenced as part of the Neighbourhood Area Consultation and their initial responses can be found at http://regissolutions.co.uk/hnts/?page_id=52.

3 Designated sites in the Neighbourhood Area

3.1 North Norfolk Coast Ramsar Site (international significance, 42% of Neighbourhood Area)



3.1.1 The Ramsar Convention, held in the town of the same name in Iran during 1971 resulted in an international treaty aimed at conservation of wetlands throughout the world. Britain signed up to the Treaty as one of 133 countries in 1973.

3.2.1 Signatories to the treaty agreed to protect their most significant wetlands from damage brought about by development. For a wetland to be designated it must be of international significance and meet a range of criteria. In particular, it must support more than 20,000 water birds and more than 1% of the world population of at least 1 particular species or sub-species.

3.1.3 The Ramsar convention is an international agreement and has no legal standing in its own right. However, in the UK Ramsar sites are legally protected under the heading of other designations – especially SSSI, Special Area of Conservation (SAC) and Special Protection Area (SPA).

3.1.4 The Site in its entirety stretches eastwards for some 40kms along the North Norfolk Coast from Old Hunstanton in the West. *It covers some 42% of the Neighbourhood Area*.



3.1.5 The information sheet provided to the Ramsar organisation (RSIS) was last updated in 1990 and identifies both key habitats (intertidal mudflats, beach/shingle ridges, dunes, salt marshes, grazing marshes and brackish lagoons) and important species (see http://regissolutions.co.uk/hnts/wp-content/uploads/2017/03/Ramsar-for-North-Norfolk.pdf). Holme Dunes is noted as an 'outstanding example' of these features within the site.

3.1.6 The RSIS also notes as long ago as 1990 that the site was under considerable visitor pressure and that visitor surveys were to be undertaken to provide the basis for a management plan.

3.2 North Norfolk Site of Special Scientific Interest (SSSI - national significance; 42% of Neighbourhood Area)



3.2.1 SSSIs date back to the National Parks and Access to the Countryside Act 1949 (updated in the Wildlife and Countryside Act, 1981) as a mechanism for protecting the environment. As one of the most longstanding designations they are used extensively to protect sites and guide/assist their effective management.

3.2.2 SSSIs may be in the ownership of private individuals or organisations and designation requires that owners manage them within guidelines set down by the Government through various legislative measures to protect their environmental status (see https://www.gov.uk/guidance/protected-areas-sites-of-special-scientific-interest) for details). Permission is required from Natural England for certain types of change to the management regime of SSSIs.

3.2.3 Each SSSI is surrounded by a series of buffer zones ('SSSI Impact Zones') where Natural England judges that change, including development, could be a threat to the conservation status of the site. These apply specifically to the processing of Planning Applications and depending on the Impact Zone in question, planning applications should either be assessed using so called 'Natural England Standing Advice' or, for very sensitive locations, sent to Natural England directly for advice (see https://www.gov.uk/guidance/protected-sites-and-areas-how-to-review-planning-applications for details).

3.2.4 In North Norfolk the SSSI boundaries coincide with those of the Ramsar site and as a result give the latter a degree of legislative protection on the principle that anything which damages the conservation objectives of the SSSI will also damage the Ramsar site and is thus covered by legislation.

3.2.5 The conservation objectives of the SSSI are set out by Natural England as a list of habitats and species ('Notified Features'). The former are similar but less detailed to those of the Ramsar site but the latter are significantly more detailed and can be found at <u>http://regis-solutions.co.uk/hnts/wp-content/uploads/2017/03/SSSI-Norfolk.pdf</u>

3.2.6 Natural England monitors the environmental health of all SSSIs and classifies them on a scale ranging from 'favourable' to 'destroyed'. The last monitoring data available for the North Norfolk SSSI recorded it as 'Favourable' with just 0.6% being unfavourable. That tiny area was recorded as 'unfavourable – recovering' and was within the Neighbourhood Area. The concern related to spread of potentially invasive species (mainly Sea Buckthorn, *Hippophae Rhamnoides*) in the Dunes. As suggested by the 'recovering' classification made in 2010 the issue was then addressed by effective management. An up to date review is now required.

3.2.7 Clearly the SSSI covers the same 42% of the Neighbourhood Plan Area as the Ramsar site and its protection applies within this area.

3.3 North Norfolk Coast Special Area of Conservation (SAC - European significance; 34% of Neighbourhood Area)

3.3.1 SACs were created in 1992 under the European Union Directive on the Conservation of Natural Habitats (Council Directive 92/43/EEC – the 'habitats directive') which aimed to establish a common basis for protected sites throughout all member states. The Directive required all nations to identify and register for protection all habitats of best quality on the basis of agreed, common characteristics (specified in Annexe III of the Directive). It has been hailed as one of the most significant conservation measures of our time. 3.3.2 Alongside SPAs (see below) the EU wanted to ensure common standards of conservation delivery throughout member states to ensure a level playing field for economic, social and cultural development on the basis that conservation has an economic and social cost. It also wanted to establish a trans-European network of protected habitats on a scale large enough to promote protection and improvement in European biodiversity. EU funding has been made available for management of these sites.



3.3.3 Not all member states have been forthcoming about identification of SACs and some states have been fined heavily by the European courts for not declaring sites. This may, in part, be due to the perception that having protected sites is an impediment to Economic Growth. The UK has been threatened with fines but not been fined.

3.3.4 In North Norfolk the SAC coincides closely with both the Ramsar site and the SSSI – but it is actually much more extensive because it stretches out into the sea and covers the whole of The Wash (see over). As far as the Neighbourhood Plan Area is concerned its boundary coincides with that of the SSSI with the rather surprising exception that Redwell and Holme Marshes are excluded. This may, in part be due to the fact that its reason for designation is focused mainly on the intertidal mud flats, beaches, shingle and lagoons which provide an outstanding habitat for marine life and migrating sea birds. Nevertheless, the reason for these exclusions is not completely clear.

3.3.5 Ensuring a coherent network of habitats for all species, but especially migrating birds, across the continent is a key feature of the rationale for the SACs. Damage to any major link in the chain of sites holds the potential to have a massive impact on migrating species and this is a particularly important feature of SACs. Providing and maintaining excellent habitats for migrating bird species is of key significance to both the Neighbourhood Plan and indeed the entire region in economic, social and environmental terms.

3.3.6 Protected habitats are listed in Annexe 1 of the Directive. Coastal lagoons are singled out as being a particularly important feature of the North Norfolk SAC and the Neighbourhood Area boasts some of the best examples of these. The conservation features and objectives form for the site can be found at http://regis-solutions.co.uk/hnts/wp-content/uploads/2017/03/UK0019838-Natura-2000-form-North-Norfolk.pdf.

3.3.7 Annexe II of the Directive contains a list of species which must be managed and conserved in accordance with published EU guidance. The Harbour Seal (Phoca Vitulina) is identified as a primary reason for selection of the site because the marine habitat provides it with excellent breeding grounds. Other important species (so called 'qualifying features' include the Otter (Lutra lutra) which has been in decline throughout Europe and Petalwort (Petalophyllum ralfsii) which is also in decline and classed as 'vulnerable' throughout Europe. The UK appears to be one of its last strongholds and the dune slacks are its key habitat.



North Norfolk SAC (Source: DEFRA MAGIC website)

3.3.8 A particularly important feature of the Habitats Directive is that it views damage to SACs in fairly absolute terms. This means no let out clauses, no excuses and unless there are demonstrable issues of public safety or overriding public interest they must be maintained. *Of particular significance to the Neighbourhood Plan is the need to demonstrate that the plan will not damage the SAC otherwise it could be challenged in law and prevented from going ahead.* The SAC covers 34% of the Neighbourhood Plan Area.

3.4 North Norfolk Coast Special Protection Area (SPA - European significance; 41% of Neighbourhood Area)



3.4.1 SPAs were created to ensure the protection of European Birds species under the EC Directive on the conservation of wild birds (79/409/EEC) – the 'Birds Directive' which came into force in 1979. They thus pre-date the SACs. For further information see:

http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm

3.4.2 Technically the site is separate to the Wash SPA but taken with that site it covers a very similar area to the SAC described above. However, in the Neighbourhood plan area it includes both Redwell and Holme Marshes – as well as coinciding with the boundary of the Ramsar site.

3.4.3 The Directive aims to protect and improve the population of all bird species (c. 500 in number) throughout the continent. SPAs are designated to protect migratory and threatened bird species with around 32% of all European species falling into the category of poor conservation status. The single largest reason for damage to bird populations is habitat fragmentation caused by urban

sprawl and transport network growth. These two key factors are compounded by loss of hedgerows and woodland, intensive farming using agro-chemicals and use of pesticides.

3.4.4 The Directive provides legislative protection to birds, nests, eggs and habitats. Damage to **protected** species is a serious offence. It places controls on hunting and makes it an offence to *deliberately disturb* birds especially when they are breeding and/or rearing young. Like the Habitats Directive, provisions are strict and scope for evading them is limited mainly to matters of public safety, aircraft safety, protection of fauna and flora, research and protection of crops in the absence of alternative measures.

3.4.5 The birds and habitats directives together form the cornerstone of EU conservation policy. Jointly they underpin the 'Natura 2000 network' of conservation sites which is designed to ensure protection of habitats and migratory bird species throughout the continent. Ultimately the aim is to restore bird populations to a 'favourable' and long term sustainable basis.

3.4.6 The bird species which are 'qualifying species' for the North Norfolk site are listed in <u>http://regis-solutions.co.uk/hnts/wp-content/uploads/2017/03/Natura-data-formUK9009031-norfolk-.pdf</u>. There are considerably more than in the Ramsar designation.

3.4.7 Failure to demonstrate that any plan or project will not harm the SPA (or indeed any protected European Site) as set out above could result in a legal challenge that prevents its implementation. The SPA covers 41% of the Neighbourhood Plan Area.

3.4.8 Legislation for the Birds Directive is transposed into UK Law via the *Wildlife and Countryside Act 1981* whilst the Habitats Directive is enacted through the *Conservation of Habitats and Species Regulations 2010*. As the UK is now reviewing its commitments to EU legislation as part of the Brexit process it is possible that these laws will either be repealed or changed. This might also impact on the preparation of plans and will need to be watched with care.

3.5 Norfolk Coast Area of Outstanding Natural Beauty (AONB – national significance; 100% of Neighbourhood Area)



3.5.1 The AONB was designated in 1968 under the National Parks and Access to the Countryside Act 1949. It covers some 453 square kilometres of unspoiled Norfolk Coast between The Wash and Great Yarmouth.

3.5.2 The main purpose of the designation is to conserve the natural beauty of the area's landscapes with special reference to Landcape Character; biodiversity; geodiversity and the historic and cultural environment.

3.5.3 In addition to these statutory objectives the AONB also recognises the need to support sustainable development of the rural economy and its communities especially where such development contributes to conservation and enhancement of the area's natural beauty. It also aims to help meet the demand for recreation where this can be achieved within its remit of landscape conservation. It sees a part of this role as educational in promoting people's value and understanding of the landscape as an economic resource thereby contributing to effective development and management.

3.5.4 Under the Countryside and Rights of Way Act, 2000 (CRoW) a range of 'relevant authorities' (including the Environment Agency, DEFRA, English Heritage, Natural England *and Parish Councils*) have a 'duty of regard' to conserving and enhancing the natural beauty of the AONB in any functions they fulfill. Under the same act Local Authorities have a duty to prepare and publish five yearly management plans which formulate policies for management of AONBs. Whilst these are not statutory, it is clear that the Neighbourhood Development Plan should conform with the policies set out in the AONB Management Plan.

3.5.5 In a recent broad assessment the AONB management team have a positive view of the 'state of the landscape' in North Norfolk with no assessment category being red, several being green and slightly more registering as amber. The main issues identified as needing attention and management in the area around Holme are the impact of Sea Level rise and climate change alongside increasing recreational pressure from visitors and development.

3.5.6 The NPPF indicates that for *planning purposes* AONBs have the same status as National Parks and that "Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads".

3.5.7 For full details of the Norfolk Coast AONB Management Plan Strategy 2014-19 see:

http://www.norfolkcoastaonb.org.uk/partnership/aonb-management-plan/377

3.6 North Norfolk Heritage Coast (national significance; 60% of Neighbourhood Area)



3.6.1 The North Norfolk Heritage Coast was established in 1975 and was one of the first areas to receive the designation.

3.6.2 Strictly, Heritage Coasts are defined by agreement between Natural England and relevant national maritime authorities rather than formally designated. This means they have no statutory significance.

3.6.3 Their role is to conserve, protect and enhance the natural beauty of the coastline; the terrestrial, coastal and marine flora and fauna; and its heritage features. The remit also extends to promoting public enjoyment of the coast and conservation of its appearance/quality – including bathing water quality.

3.6.4 Natural England evaluated the effectiveness of Heritage Coasts in 2006 and found that many of its functions overlapped strongly with AONBs. Further, most of the established Heritage Coast areas overlapped with AONBs. In practice, it appears that AONBs have more or less 'taken over' the initial remit though the 'Heritage Coast Brand' still has a degree of cache in the eyes of the public.

3.6.5 In Norfolk the AONB recognises the role of the Heritage Coast designation and information can be found about it in the AONB Management Plan documents.

3.6.6 All of this notwithstanding, the designation is significant for the Neighbourhood Plan because the NPPF contains specific policies relating to Heritage Coasts – in particular NPPF 114 requires that Local Planning Authorities should *"maintain the character of the undeveloped coast, protecting and enhancing its distinctive landscapes, particularly in areas defined as Heritage Coast, and improve public access to and enjoyment of the coast"*.

3.7 Holme Dunes National Nature Reserve (national significance)



3.7.1 National Nature Reserves (NNRs) were initially set up under the National Parks and Access to Countryside act of 1949 and further strengthened by the Wildlife and Countryside Act of 1981.

3.7.2 There are over 200 NNRs in England representing the country's most important habitats and areas for wildlife. They have the highest level of conservation protection under *UK law* but also have a complex remit – supporting wildlife, conservation, research and tourism.

3.7.3 They are designated and overseen by a competent, statutory authority – in the case of England that is now Natural England. There is strict protection relating to development on or near NNRs regulated by Natural England and it is possible for NNRs to be de-designated if they are badly managed/falling into disrepair.

3.7.4 Whilst Natural England manages some NNRs themselves many are managed on a day-to-day basis by other organisations such as the RSPB, the National Trust and the Wildlife Trusts. Holme Dunes is managed by the Norfolk Wildlife Trust on behalf of Natural England.

3.7.5 Holme Dunes had 100,000 visitors in 2010 according to a recent report (Wild Frontier Ecology, 2015). This figure pre-dates the expansion of the Visitor Facilities to include a cafeteria and toilets alongside its 100 car parking spaces.

3.7.6 Increasing visitor pressure is making the balancing of conservation and tourism functions increasingly difficult and a more recent study (Panter, Liley and Lowen, 2016) has estimated that visitor numbers based on Norfolk residents only are likely to increase by 9% for sites on the North Norfolk Coast largely as a result of new housing development.

3.7.7. The visitor centre and access track are also *within* the other designated sites described in this report (Ramsar, SSSI, SAC and SPA).

3.7.8 The Holme Dunes reserve has enjoyed considerable success in conservation of rare species – in particular – Natterjack Toads – a rare, European Protected species has been introduced here by the Norfolk Wildlife Trust and established a small local population throughout the reserve which has now spread throughout Holme Village.

3.8 Holme next the Sea Conservation Area (local significance; 3% of Neighbourhood Area)

3.8.1 Conservation Areas were first designated in the UK in 1967 and there are now over 8,000 in existence. They are areas in towns or villages that are considered worthy of preservation or enhancement because of their special architectural or historic interest.

3.8.2 The legislation underpinning creation and maintenance of Conservation areas is the Planning (Listed Buildings and Conservation Areas) Act 1990 which primarily gives local authorities the responsibility for their creation and management. For further details see:

http://www.legislation.gov.uk/ukpga/1990/9/contents

3.8.3 Many Conservation Areas contain clusters of listed buildings which are locally important – Holme next the Sea has eight in total. Individual or groups of trees are also a common feature and many may be protected by tree preservation orders (TPOs) though these are not restricted to Conservation Areas.



3.8.4 Research has shown that village Conservation Areas are often of great importance to the local community and that people value living in them. As a consequence property within their boundaries often commands higher prices.

3.8.5 Protection of their character is usually achieved by policies in the local plans which aim to protect the character of buildings, layout, views and vegetation. Special permission is needed to demolish buildings within their boundaries and the general thrust of planning policy is to aim for new development to contribute towards enhancing their character.

3.9 Flood Risk Zones (local significance)



3.9.1 Most of the UK is in areas where the flood risk is very low – less than one chance in one thousand in any year. These areas are in Flood Zone 1.

3.9.2 Flood Zone 3 (dark blue on the map) represents areas where there is a high risk from flooding in any year -1 chance in 100 from rivers or 1 chance in 200 from the sea - assuming that there were no flood defences. Similarly flood zone 2 (light blue fringes around zone 3 on the map) shows areas that would be affected by an extreme flood event with a 1 in 1000 chance of happening in any year.

3.9.3 If flood defences hold then these areas will not be flooded but if flood defences fail for mechanical reasons or because the flood event is very extreme then flooding will occur.

3.9.4 Climate change is expected to cause sea level rise of between 4 and 8mm per year between now and 2055 and this will have a number of impacts including increasing the risk of flooding in the

zones described above. Furthermore, climate change is also expected to bring about an increasing number of extreme weather events. This will increase risk in vulnerable areas still further.

3.9.5 A significant part of Holme next the Sea is in Flood Zone 3 and is thus at significant risk of flooding. In addition to affecting property, access for emergency services may also be an issue in the event of serious flooding. To date, there is no formal Emergency Plan for Holme.

3.9.6 The Borough Council of Kings Lynn and West Norfolk has also created a Hazard Map for its coastal areas. The map includes the area corresponding broadly with the flood zones shown above.

3.9.7 The National Planning Policy Framework aims to discourage most types of development in Flood Risk zones requiring that a 'sequential test' and/or an 'exception test' must be passed before development can take place.

3.10 Agricultural Land Classification (local significance)



3.10.1 Agricultural Land is one of the country's most valuable resources and maintaining the best quality agricultural land has always been a priority in the planning system. This means that where possible, lower quality land should be developed before high quality land.

3.10.2 The classification has five classes ranging from Grade 1 (best quality) to Grade 5 (poorest quality). Other land descriptions are used in the scheme including 'Urban' and 'woodland'.

3.10.3 Holme next the Sea is predominantly Grade 3 land but with a significant area of high quality Grade 2 land running across the centre of the Parish. The grazing marshes are of lower agricultural value (Grade 4).

3.11 East Coast Shoreline Management Plan (regional and local significance)



3.11.1 The Shoreline Management Plan (SMP) is a non-statutory plan that aims to set out a strategy for managing risk from coastal erosion and flooding to the developed, historic and natural environment of the entire UK. It specifically sets out the 'intent of management' for flood defences over the next 100 years.

3.11.2 Holme next the Sea is included in Section 5 (SMP 5) of the Plan which deals with the 75km section of coast from Old Hunstanton in the West to Kelling Hard in the East. The plan was prepared on behalf of the Environment Agency by an Engineering Consultancy (Royal Haskoning) and it consists of 23 separate reports amounting to c. 1000 pages of material. The Plan was finalised in 2010 and:

- Involved extensive consultation (though limited records are evident in Holme)
- Includes a Strategic Environmental Assessment and a Habitat Regulations Assessment as it will have a significant impact on EU protected sites
- Has permission from the Secretary of State for The Environment to plan for some negative impacts on EU protected sites by virtue of 'Imperative Reasons of Overriding Public Interest IROPI'
- Will have a major impact on the Parish of Holme next the Sea during the period of the Neighbourhood Plan.

3.11.3 The 'management intent' set out in the plan is **subject to both**:

- Technical feasibility
- Availability of funding.

3.11.4 The SMP divides the area of coast into 'Super Frontages' and divides each Super Frontage into Policy Development Zones (PDZs). It covers three 'Epochs' for each PDZ representing the short term (2010 - 2025), the medium term (2026 - 2055) and the long term (2056 - 2105). For each PDZ and each epoch it sets out 'Policy Options' which may be 'Hold the Line' (maintain existing defences); Advance the Line (build new defences seaward of existing ones); Managed Realignment (enable the shoreline to adjust to a more natural shape with less or no reliance on man-made defences whilst trying to limit the negative consequences for property, land and nature) and No Active Intervention (let nature take its course). The first two epochs are relevant to the Neigbourhood Plan period which runs from 2016 to 2036.

3.11.5 Holme represents a substantial part of Super Frontage 1 which has three directly relevant PDZs. Each of these PDZs plays a significant role in protecting areas of the Parish that are likely to be subject to flooding – i.e. more or less those areas of flood risk shown in section 3.9 of this report.

Policy Development Zone	Epoch 1	Epoch 2	Epoch 3
	Now To 2025	2026 - 2055	2056 - 2105
PDZ1a – Old Hunstanton Dunes	Hold the Line	Managed	Managed
		Realignment	Realignment
PDZ1b – Holme Dunes	Managed	Managed	Managed
	Realignment	Realignment	Realignment
PDZ1c – Thornham Sea Bank	Hold the Line	Hold the Line	Hold the
			Line or
			Managed
			Realignment

3.11.6 The table shows the policy for each zone in each epoch. The thrust of the policies is to enable realignment of the coast during the period of the SMP. The underpinning logic is that parts of Holme Dunes are eroding rapidly and erosion of the sea bed is being seen in near-shore surface profiles . These adjustments may be due to long term changes precipitated by the reclamation of the grazing marsh areas behind Thornham Sea Bank some 150 years ago. They may be accelerated by Sea Level rise and more frequent, extreme storm events associated with climate change.

3.11.7 The SMP argues that over the period of the plan, allowing the coast to revert to a more natural profile by removing the protection provided by the Sea Bank would result in a more natural shape for the coast, alter the sediment dynamics of the near-shore zone and result in more effective, less costly sea defences. The dunes would 'roll back' inland and new defences might be necessary to maintain property in Holme (green lines on the map show one possible scheme – but should not be interpreted as proposals).

3.11.8 Based on discussions with the Environment Agency (February 2017) we understand that the *intention* behind the policies shown in the Table is to ensure ongoing maintenance and protection in the medium term (Epochs 1 and 2) and to review the situation with respect to the Sea Wall during Epoch 3, all subject to ongoing sea level rise, impacts of climate change, funding and technical feasibility. Currently there is a budget to cover the recurrent costs of any maintenance but money may not available to cover the full costs of any major capital investment. This is based on current funding arrangements which may change in the future.

3.11.9 According to the Strategic Environmental Assessment (Addendum) of the plan – these changes will have a major negative effect on the European Protected sites because the Broadwater lagoon becomes saline and a significant area of grazing marsh become saline, intertidal mudflats/marsh. This would impact negatively on a significant number of qualifying species that depend on these habitats.

3.11.10 It is clear from the SMP that there is significant uncertainty about what will actually happen in the event that the Sea Bank fails because the processes that shape this part of the coast are not fully understood. Best estimates suggest that with no maintenance the Sea Bank will fail sometime between now and 2030 – but with continued maintenance it could last for another 50 years depending on sea and weather conditions. As a consequence, ongoing monitoring is now in place so that the transformation described here can be enabled in a controlled way – thereby ensuring continued protection for land and buildings.

3.11.11 Inevitably this uncertainty in the SMP translates into uncertainty for residents of Holme both in terms of risk to property and loss of environmental amenity. The Neighbourhood Plan questionnaire has revealed that the latter is of huge importance to parishioners – many of whom choose to live in Holme because of its special environment, internationally outstanding wildlife and cultural heritage. The uncertainty also translates into a major challenge for the Neighbourhood Plan which must ensure resilience and adaptation to these in line with SMP guidance. At present the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC require that mitigation and compensation measures be put in place for any action that would damage the qualifying features of the protected sites. Creation of similar, replacement/compensating habitat elsewhere along the coast *might* meet this requirement – but it would certainly not address the huge economic and

social impact on the Parish of Holme. Assuming appropriate habitat could be created, planning and implementation would need to begin now to give any certainty of success.

3.12 Nitrate Vulnerable Zones



3.12.1 The EU Nitrates Directive (91/676/EEC) is part of the broader Water Framework Directive that aims to establish a pan European approach to preventing pollution of surface and ground water by Nitrates. The directive requires that land which drains into water resources that exceed or could exceed a nitrate content of 50 mg/l are declared as Nitrate Vulnerable Zones. Within these zones limits are placed on the use and storage of nitrate-based fertilizers which are the main source of water pollution by nitrates.

3.12.2 Nitrates are essential for all life to thrive but excessive levels in water can damage human health, lead to excessive growth of algae and plant material in lakes and streams (eutrophication) which in turn can be devastating to fish and plantlife. Very high levels can lead to so called 'anoxic events' where photosynthesis by algae becomes so high over a period of hours that the water is starved of oxygen resulting in the sudden death of all fish and water living organisms. These events often include other sources of nitrate pollution including that from sewage, traffic exhausts and industrial processes.

3.12.3 With the exception of the immediate coastal zone all of the Parish of Holme next the Sea is classed as a Nitrate Vulnerable Zone. This is because the ground water beneath the parish is considered to be vulnerable to Nitrate pollution. In parts it may be abstracted for drinking water and it also feeds freshwater springs and the Hun which have the capacity to pollute the environmentally sensitive protected sites along the North Norfolk Coast.



3.13 The Wash and North Norfolk European Marine Site (EMS)

3.13.1 The Wash and North Norfolk Coast was designated a European marine site under UK and European law in 1996. The site effectively draws together a number of SPAs, SACs and SSSIs in and around the wash to provide the entire area with protection under the relevant European Directives.

3.13.2 Whilst all of these sites have existing protection, the EMS allows focus on their collective set of qualifying features in relation to specifically offshore, marine activities that might impact on them. These include shipping, offshore energy, marine recreation, fisheries and MOD training. The EMS brings together both users and managers of the sites under a coordinated management framework thereby ensuring the best possible approach to conservation.

4 Conclusions

4.1.1 The number and breadth of designations described above underlines the importance and sensitivity of the natural and physical environment in Holme next the Sea.

4.1.2 The various designations result in some 42% of the Parish being protected under current legislation and any plan, including the Neighbourhood Plan must take this into account and ensure that policies are consistent with the designation objectives.

4.1.3 In the long term (probably 50 -100 years, barring major events) the Shoreline Management Plan explicitly caters for the possibility that Climate Change and its impact on flood defences will have a major negative impact on the Broadwater Lagoon and grazing marshes in Holme which may well end up reverting to intertidal mudflats under a policy of managed retreat. This will impact negatively on all of those birds that depend on these habitats – especially geese, ducks, bittern and birds of prey. There will also be changes to the structure of the dunes which will continue to provide flood defence but will 'roll back' towards the village. This will impact on paish amenity and the existing configuration of footpaths.

4.1.4 With such a wealth of riches highlighted by the designations it is easy to assume that the remaining part of the Parish is of less environmental value. However, all of Holme lies within the Norfolk AONB underlining its outstanding landscape and areas outside the protected sites also have exceptional biodiversity and nature conservation value. This must also be recognised in the Neighbourhood Plan.

5.0 References

Panter, C., Liley, D., and Lowen, S. (2016), Visitor Surveys at European Protected Sites across Norfolk during 2015 and 2016, 103pp.

Wild Frontier Ecology (2015), Habitats Regulations Assessment of Detailed Policies and Sites Plan, Site Allocations and Development Management Policies – Proposed Submission Document, 107pp.