FOOTPRINT ECOLOGY

Norfolk Recreational Impact Avoidance and Mitigation Strategy Action Plan

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Summary

This plan has been commissioned by Norfolk Planning Authorities to review and refine their existing mitigation approach for recreation impacts to European sites, associated with plan-led housing growth. It builds on the approach established in 2020 in the in the Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy ('GIRAMS') and sets out detailed actions relating to mitigation measures.

The plan covers the following broad areas, many of which cover multiple European sites (i.e. Special Areas of Conservation, SACs; Special Protection Areas, SPAs; and Ramsar sites):

- Breydon Water
- Dersingham & Roydon
- East Coast
- Norfolk Valley Fens
- North Norfolk Coast
- Ouse Washes
- The Brecks
- The Broads
- The Broads SAC
- Wash

These varied sites encompass much of the Norfolk countryside. Access to the countryside is important for health and well-being, brings economic benefit to rural areas (e.g. through tourism) and helps foster connectedness with the natural environment. Access can also cause problems at sites, for example through damage, contamination, disturbance and increased fire risk. Achieving the necessary balance can be difficult and is potentially exacerbated by the cumulative effects of new housing across the county. Local planning authorities, as competent authorities under the Habitats Regulations, need to be able to rule out adverse effects on integrity as a result of housing, alone or in-combination with other plans or projects. This plan is about achieving that balance.

The sites all differ markedly in their draw for recreation, the habitats and species present and their vulnerability to recreation impacts. A wide range of organisations are involved in managing them are/or providing for recreation use. As such the plan sets a blueprint for collective working and collaboration, enabling development by ensuring adequate protection is secured. A level of developer contribution is set, based on the overall cost (£22 million) of a suite of project ideas (provided in part by potential delivery organisations), divided by the overall level of housing growth anticipated across Norfolk to 2046 (nearly 75,000 new dwellings).

The ideas for mitigation projects cover a range of interventions including infrastructure, engagement, redistributing access, monitoring (targeted at supporting the mitigation delivery) and support/collaboration across organisations. A delivery manager will coordinate the

mitigation and work with partners to allow them to draw on the funds and further develop projects as appropriate. The project ideas provide the outline for the mitigation – some are close to fully worked up proposals and could be implemented quickly while others are likely to require refining and review with time. The role of the delivery manager will ensure mitigation is linked to where housing growth takes place and phased to match the housing growth coming forward. Oversight and the necessary governance ensures diligence and flexibility. This provides the necessary mechanism for local planning authorities to ensure compliance with the Habitats Regulations.

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We are grateful to a wide range of people who have provided information, project ideas and contributed to discussion around mitigation measures and visitor management at sites in Norfolk.

1. Introduction

1.1 This report has been commissioned by Norfolk Planning Authorities[1] to review and refine their existing mitigation approach for recreation impacts to European sites, associated with plan-led housing growth.

Legislative context

1.2 European sites are the cornerstone of UK nature conservation policy. Each forms part of a 'national network' of sites that are afforded the highest degree of protection in domestic policy and law. They include Special Protection Areas (SPA) classified under the 1979 Birds Directive and Special Areas of Conservation (SAC) designated under the 1992 Habitats Directive[2]. The designations made under the European Directives still apply and the term, 'European site' remains in use. According to long-established Government policy[3], European sites also comprise 'Wetlands of International Importance' (or Ramsar sites).

1.3 European sites have the benefit of the highest level of legislative protection for biodiversity. Public bodies, including local planning authorities, have specific duties in terms of avoiding deterioration of habitats and species for which sites are designated or classified, and stringent tests have to be met before plans and projects can be permitted. Importantly, the combined effects of individual plans or projects must be taken into account. For local planning authorities, this means that the combined effect of individual

[1] Broadland District Council, Breckland District Council, Great Yarmouth Borough Council, The Borough Council of King's Lynn & West Norfolk, North Norfolk District Council, Norwich City Council, South Norfolk Council and the Broads Authority.

[2] For the avoidance of doubt, the list of statutory European sites also comprises: A site submitted by the UK to the European Commission (EC) before Exit Day (a candidate SAC or cSAC) as eligible for selection as a Site of Community Importance (SCI) but not yet entered on the ECs list of SCI, until such time as the Appropriate Authority has designated the site or it has notified the statutory nature conservation body that it does not intend to designate the site. After Exit Day, no further cSACs will be submitted to the EU. Statutory European sites also include SCI included on a list of such sites by the European Commission from cSACs submitted by the UK before the UK left the EU, until such time as the UK designates the site when it will become a fully designated SAC.

[3] ODPM Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (16 August 2005), to be read in conjunction with the current NPPF, other Government guidance and the current version of the Habitats Regulations.

development proposals needs to be assessed collectively for their cumulative impact.

1.4 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. Importantly, the most recent amendments (the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019[4]) take account of the UK's departure from the EU.

1.5 The application of the European legislation needs to be made with regard for the way in which the protective requirements should be secured by public bodies. The legislation requires public bodies to be proactive, not reactive. The overarching objective is to maintain sites and their interest features in an ecologically robust and viable state, able to sustain and thrive into the long term, with adequate resilience against natural influences. This requires public bodies to put measures in place to prevent deterioration of European sites, not to wait until there is harm occurring that needs to be rectified. Where European sites are not achieving their potential, the focus of attention by public bodies should be on restoration.

1.6 Public bodies are referred to as 'competent authorities' within the legislation. The duties set out within the Habitats Regulations in relation to the consideration of plans and projects are applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. The legislation is founded on the 'precautionary principle' and it is necessary to rule out harm, rather than demonstrate impacts.

Relevant European sites

1.7 Norfolk is one of the richest and most important counties for biodiversity in England. Within the county there are a range of European sites encompassing estuary, coast, heathland, wetland, grassland and woodland habitats and designated for a range of species. The sites include extensive areas such as the Norfolk Broads, the North Norfolk Coast, the Wash and the

[4] The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

Brecks. Smaller sites include Roydon and Dersingham Bog, and the Norfolk Valley Fens. Some of these sites support multiple designations.

1.8 We have reviewed all the European sites within a 5km radius of the Norfolk County Boundary in order to ascertain which need to be included in this Strategy Action Plan. A separate annex sets out the content of that review and provides context to the relevant sites. From the review we have identified 19 European sites (that fall into 8 areas/groups of sites) where the cumulative impacts from plan-led housing growth trigger a need for mitigation within this action plan. In addition, the Ouse Washes SPA/Ramsar is flagged as there is a lack of data and some uncertainty regarding the scale of impact and need for mitigation.

1.9 The sites and areas selected are shown in Map 1 and summarised in Table 1.

Recreation use

1.10 The relevant European sites have varying levels of public access, ranging from a simple network of public footpaths to nationally-promoted sites with visitor centres, cafes, etc. Some sites are open access land, for example granted under the CRoW Act (2000). Some sites have extensive tourist infrastructure. In the Broads and along the North Norfolk Coast much access occurs on water (via boating and watersports) as well as by land.

1.11 Concern about recreation impacts to many of the European sites extends back over many years (Mahon, 1994; Norfolk Coast Project, 1995; Liley, 2008; Skeate and Perrow, 2008). Visitor surveys of most of the sites were conducted in 2015/16 by Footprint Ecology (Panter, Liley and Lowen, 2017), and that work included predictions of how access might change as a result of plan-led housing growth. That visitor survey was commissioned to provide necessary evidence for Habitats Regulations Assessments of Local Plans.

1.12 Table 1 highlights relevant types of recreation impacts are relevant for each site, with respect to the following impact pathways:

- **Damage**: encompassing trampling and vegetation wear, soil compaction and erosion;
- **Contamination**: including nutrient enrichment (e.g. dog fouling), litter, invasive species;
- **Disturbance**: relevant to fauna only, and relating to the avoidance of otherwise suitable habitat, direct flushing and direct mortality (e.g. dogs killing wildlife, eggs being trodden on, nests deserted);
- **Fire**: increased incidence and risk of fire, and;

- **Other**: all other impacts, including harvesting and activities associated with site management, for example the difficulties in achieving necessary grazing.

Map 1: Relevant areas.

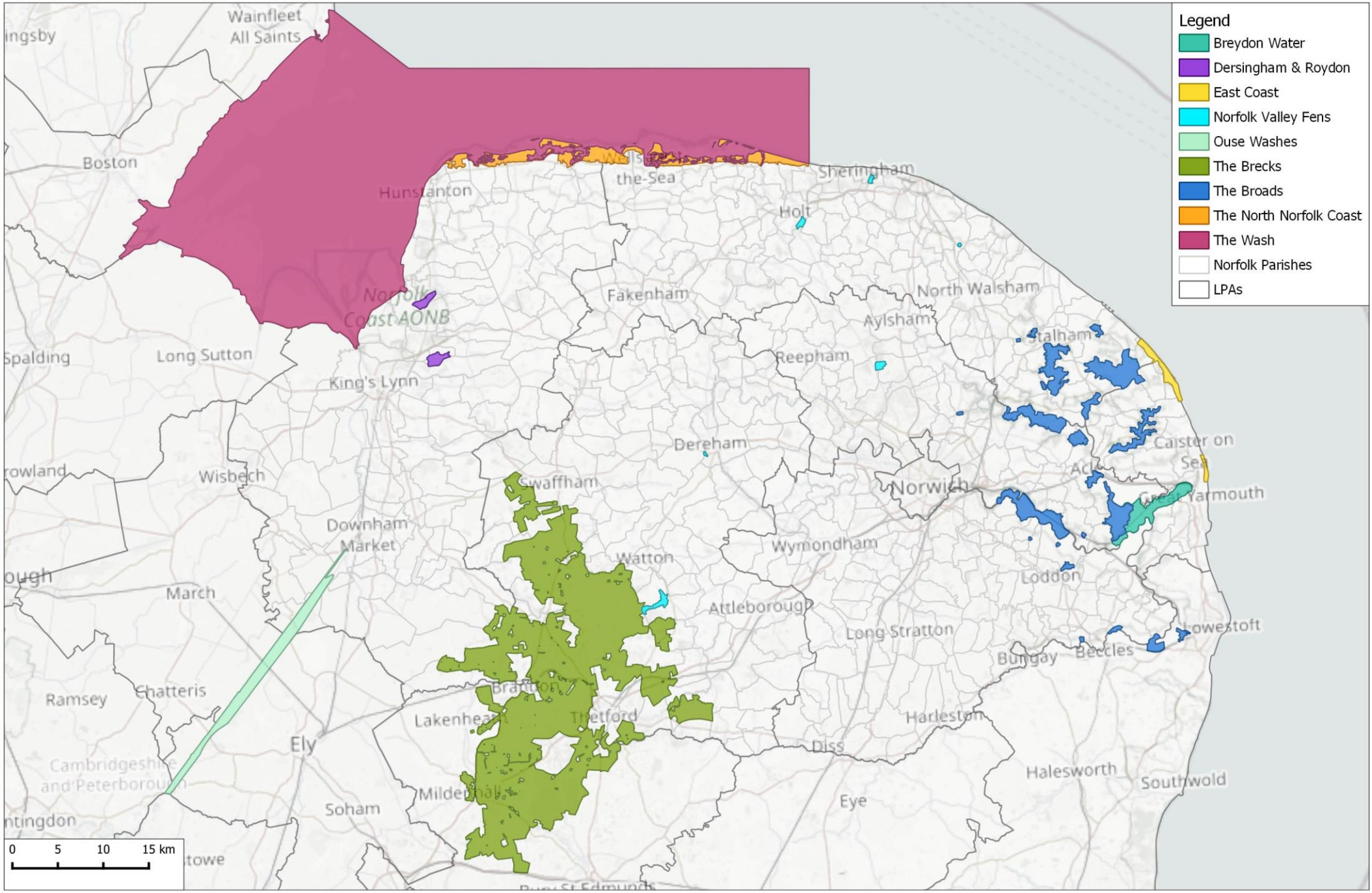

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Table 1: Summary of key sites where mitigation required and some of the potential general impacts from recreation to the European Site interest features. Potential zone of influence reflects the 75th percentile (visitors from home only) from the 2015/16 visitor survey. Grey shading (Ouse Washes) reflects the site with some uncertainty.

Area	European Sites or component sites	Disturbance to breeding birds	Disturbance to wintering/passage birds	Disturbance to non-avian interest	Damage (Trampling/erosion)	Increased fire risk	Contamination	Other	Notes
Breydon Water	Breydon Water SPA/Ramsar	✓	✓						Key concerns relate to eastern end of site, which is accessible from the edge of Great Yarmouth.
Dersingham & Roydon	Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar, Roydon Common Ramsar	✓[1]	✓[1]		✓	✓	✓	✓	SAC comprises both Ramsar sites
East Coast	Winterton Horsey Dunes SAC Great Yarmouth North Denes SPA	✓	✓		✓	✓	✓	✓	Little Terns (SPA feature) mobile and breeding sites vary over time
Norfolk Valley Fens	Norfolk Valley Fens SAC (Buxton Common SSSI, Holt Lowes SSSI, Potter and Scarning Fens SSSI, Sheringham and Beeston Regis Commons SSSI, Southrepps Common SSSI and Thompson Water, Carr and Common SSSI).				✓	✓	✓	✓	Only some of the component SSSIs vulnerable as not all have access or vulnerable features
North Norfolk Coast	The North Norfolk Coast SAC/SPA/Ramsar	✓	✓	✓	✓		✓	✓	
Ouse Washes	Ouse Washes SPA/Ramsar	✓	✓						
The Brecks	Breckland SAC/SPA	✓			✓	✓	✓	✓	
The Broads	The Broads SAC, Broadland SPA/Ramsar	✓	✓		✓	✓	✓		
Wash	The Wash and North Norfolk Coast SAC, The Wash SPA/Ramsar	✓	✓	✓	✓		✓	✓	Wash and North Norfolk Coast SAC extends a long way east and some overlap with North Norfolk Coast

[1] Note that while Roydon Common & Dersingham Bog are not designated as SPAs, both have supported notable numbers of nightjars in recent year and Hen Harriers have roosted at Roydon.

Existing mitigation and the benefits of a strategic approach

1.13 A strategic approach to mitigation was set out in the Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy ('GIRAMS') (Hooton and Mills, 2020). This covered all Norfolk European sites and built on the visitor survey results (Panter, Liley and Lowen, 2017) to establish mitigation approaches. The latter included green infrastructure (to draw visitor use away from European sites) and access management measures on the European sites themselves.

1.14 A strategic and plan-led approach to protecting European sites from the impact of recreation is now widely recognised as being more effective than dealing with these impacts on a development-by-development basis. Similar approaches have been established around the country (for example on the Dorset Heaths, the Thames Basin Heaths, the Solent, the Suffolk Coast, within Poole Harbour, the South Pennine Moors, and on the Northumbria Coast).

1.15 Recreation pressure is complex, as the way visitors use a site can change with time, and the distribution of a European site's qualifying features can also change. Furthermore, to ensure effectiveness, mitigation needs to include a package of measures that work together in an integrated way. For example, educating visitors, reinforcing messages with site-based staff, and providing the right infrastructure to meet visitor needs and influence visitor behaviour could all fit together as part of a mitigation package, but are the kinds of measures that cannot be delivered in a piecemeal way, implemented by individual developments. The situation in Norfolk is particularly complex, given the range of European sites and the different organisations involved in looking after them. It is only through partnership and collaboration that mitigation will work, and this cannot be achieved piecemeal.

1.16 Collective funding is therefore essential for measures on and around the European sites, and these fit alongside the provision of alternative green infrastructure in the right places, and with the right facilities to make a meaningful reduction in visits to the European sites.

1.17 A strategic approach also ensures that mitigation can be secured in a way to maximise benefits for local communities and wildlife, ensuring a positive

approach that provides for recreation use, and ensures long-term protection for the European sites.

Aims of this plan

1.18 The current GIRAMs strategy has now been in place since 2020. Since then, the Covid pandemic has changed how people visit the countryside and use local greenspaces, and also highlighted the importance of local greenspace. There is therefore a need to revisit the GIRAMS and ensure the right measures are in place.

1.19 There is also new evidence and emerging studies that provide new context. A study of the North Norfolk Coast and the Wash (Liley *et al.*, 2022) identified a new direction for visitor management and highlighted the need to reduce visitor numbers in a strategic way. An on-going piece of work for West Suffolk is producing a mitigation strategy that will involve some Norfolk sites.

1.20 Local authorities are at varying stages in their local plans and the potential housing numbers in the emerging plans does not necessarily reflect the growth envisaged when the GIRAMS was produced. There is therefore a clear need to review and refine the existing mitigation approach, so that relevant local authorities, as competent authorities under the Habitats Regulations, are able to rule out adverse effects on integrity (from increased recreation pressure associated with new housing growth), alone or in-combination for plan-led growth.

1.21 As such this report builds on the original GIRAMS study to set out detailed actions relating to mitigation measures on European sites. It sets the basis for partnership working and the relevant organisations to work collectively.

1.22 Mitigation will also need to include measures away from the European sites/SSSIs. These largely comprise measures that relate to providing alternative recreation provision, typically referred to as Suitable Alternative Natural Greenspace (SANG) and these are part of the overall GIRAMS approach but are outside the scope of this report.

2. Scale of growth to be mitigated and zones of influence

2.1 The Norfolk Local Planning Authorities provided data on potential housing that they anticipated likely to come forward 2022-2041 and that will potentially require mitigation. These data indicate a total of around 47,448 dwellings (Table 2). This is clearly an approximate figure and represents a snapshot in time and a best estimate as to likely scale of mitigation required. The data are summarised according to different areas/European sites and mapped in the separate Annex. Using these data we have extrapolated the figures to give an indication of the level of growth over the period to 2046. This gives a total of 74,950 dwellings.

Table 2: Approximate breakdown of housing growth by local authority (data provided by Norfolk Local Planning Authorities) to 2046.

Local planning authority	Estimated growth to 2046 (25 years)
Breckland	14,292
South Norfolk	12,315
Broadland	10,599
North Norfolk	9,813
Norwich	11,435
King's Lynn and West Norfolk	10,369
Great Yarmouth	5,793
The Broads	334
Total	**74,950**

2.2 Postcode data from early 2023 indicate there were around 439,278 residential dwellings within Norfolk, growth to 2046 (74,950) would represent an increase of around 18%.

2.3 New housing will come forward at a range of locations across Norfolk. Housing in different locations will have different implications for European sites. In general, the closer development is to sites, the greater the likely level of increased recreation use. For example, new residents in Great Yarmouth might be more likely to visit Winterton Dunes than Holme Dunes. The pattern is however complex, given the range of different sites, different draw for recreation use, how people use sites for recreation and the transport links.

2.4 Use of the 75th percentile from postcode data has become a standard way to define a geographic area, a zone of influence, within which likely significant effects might be triggered, thereby triggering a requirement for mitigation (see Liley, Panter and Chapman, 2021 for discussion). The use of the 75th percentile (i.e. closest 75% of interviewees) ensures that the zone captures the majority of use and captures the local use (which is typically the most regular). The zone is sometimes adjusted to reflect particular types of user or local geography, depending on the relevant issues.

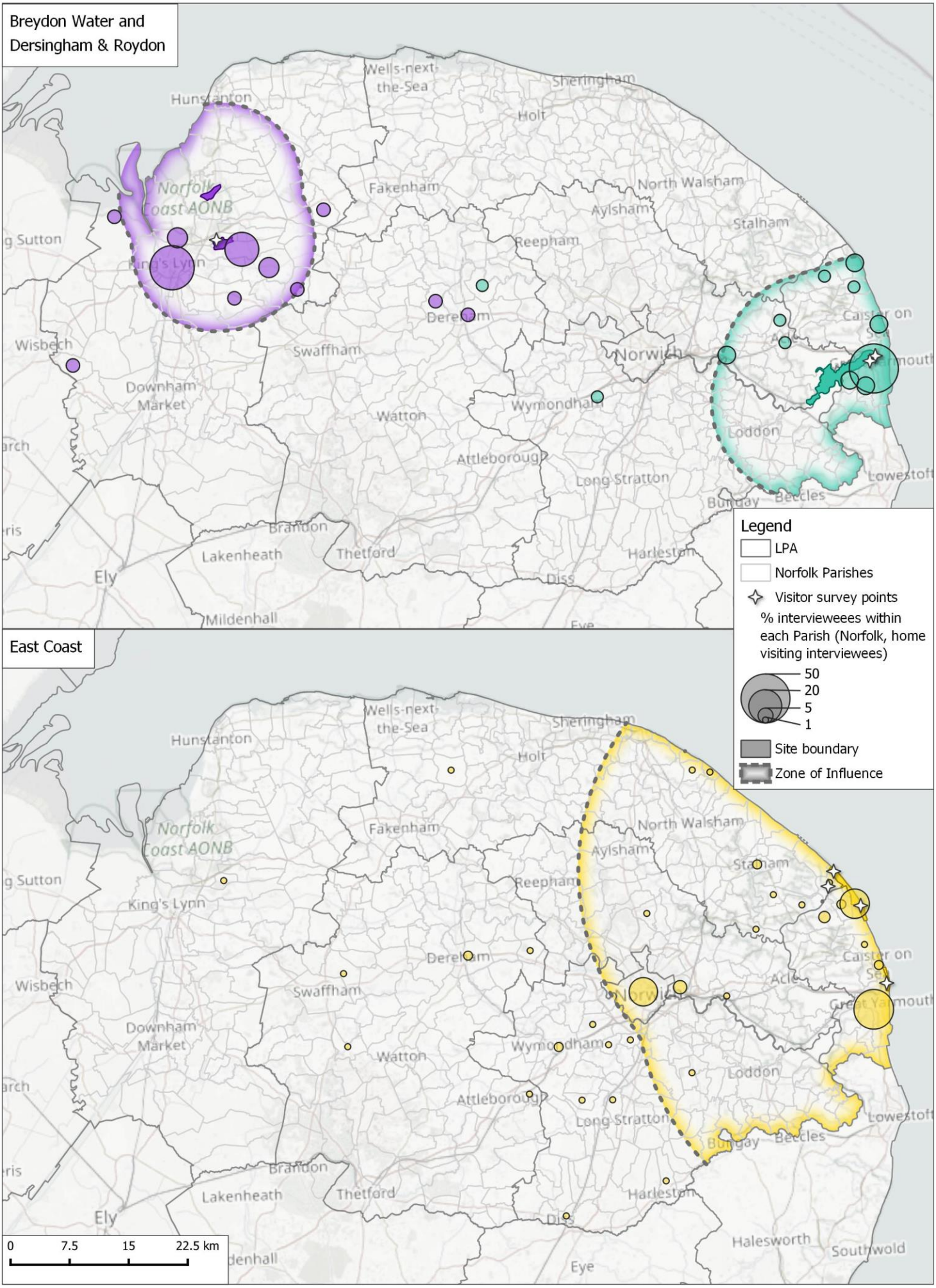
2.5 Table 3 summarises the zones of influence for each of the relevant areas included in this Action Plan. These figures are drawn from visitor survey data and the 75th percentiles for those interviewees visiting on a short visit directly from home that day. The 75th percentiles broadly reflect those values used in the GIRAMS, with some slight differences that reflect that the GIRAMS included Breydon Water in the East Coast and also took the average 75th percentile rather use than the pooled data. The zones are mapped in Maps 2 - 5, which also show the postcode data (compiled by Parish). The maps further differ from the GIRAMS in that only those component parts of the Norfolk Valley Fens where access impacts are relevant are included.

Table 3: Potential zones of influence and current housing figures (extracted from postcode data from early 2023); No visitor data are available for the Ouse Washes so there is uncertainty around the scale of any zone of influence.

Area	Potential zone of influence (km)	Current housing within zone of influence within Norfolk
Breydon Water	12.1	61,681
Dersingham & Roydon	10.4	38,777
East Coast	31.8	221,206
Norfolk Valley Fens	14.7	210,094
North Norfolk Coast	40.6	284,544
Ouse Washes	?	
The Brecks	26.3	170,639
The Broads	29.7	306,499
Wash	58.4/ 11.0*	229,655

* The two distances reflect the east coast (58.4km) and the south coast (11.0km) where access patterns and draw are very different. See separate Annex for details and background.

Map 2: Zones of Influence at Breydon Water, Dersingham & Roydon and the East Coast.



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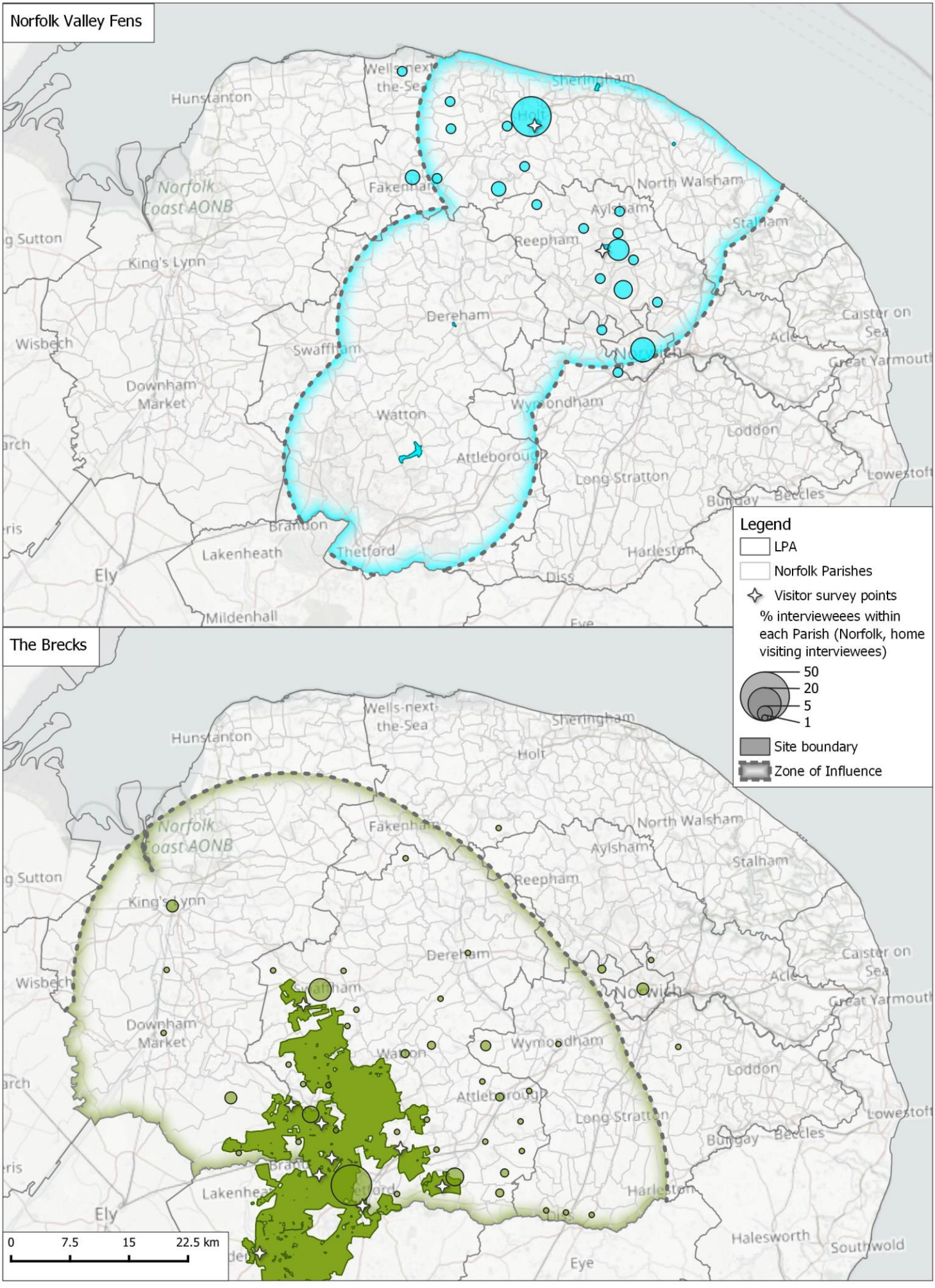
Map 3: Zones of Influence at Norfolk Valley Fens and The Brecks.



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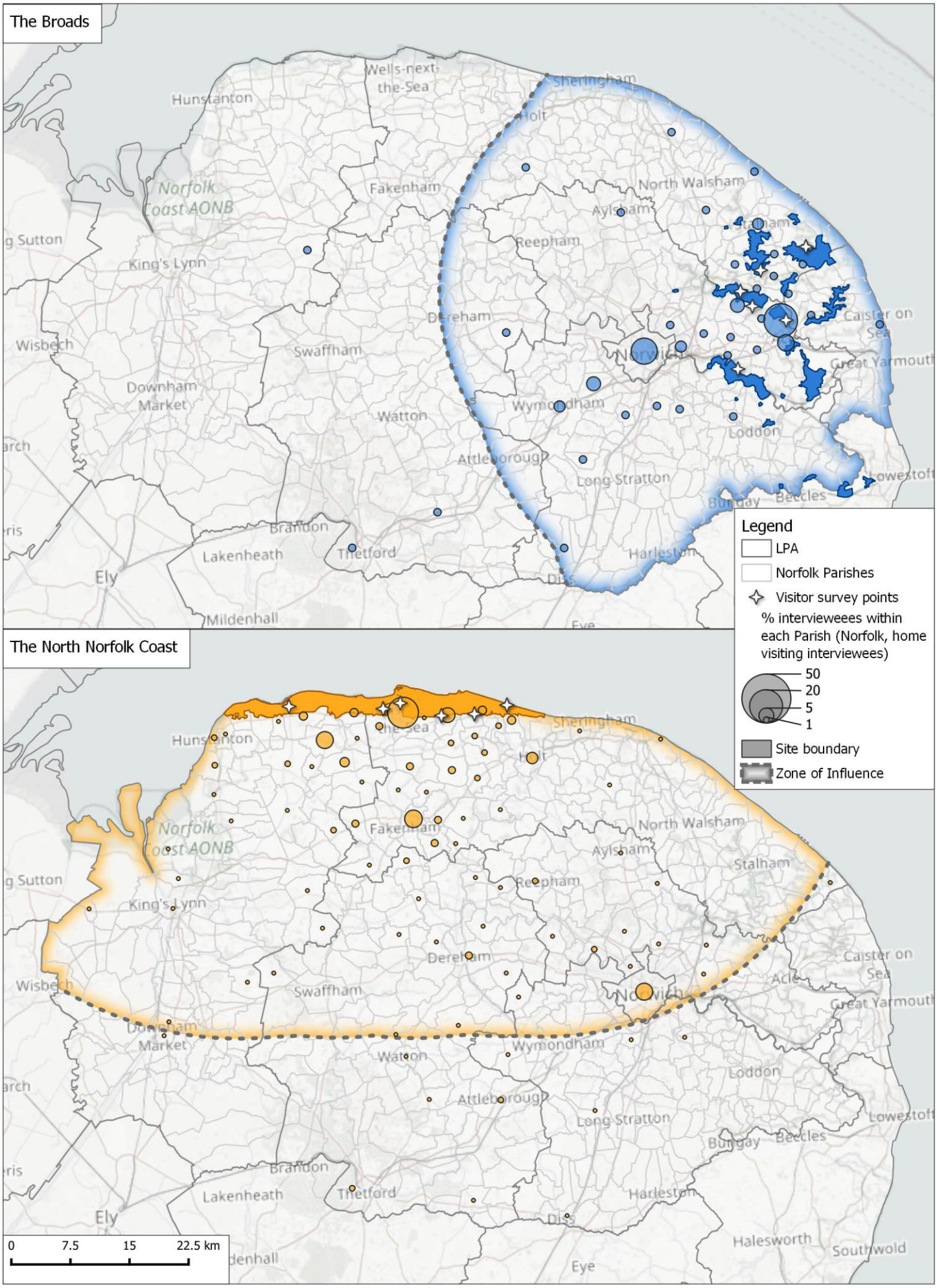
Map 4: Zones of Influence at The Broads and The North Norfolk Coast.



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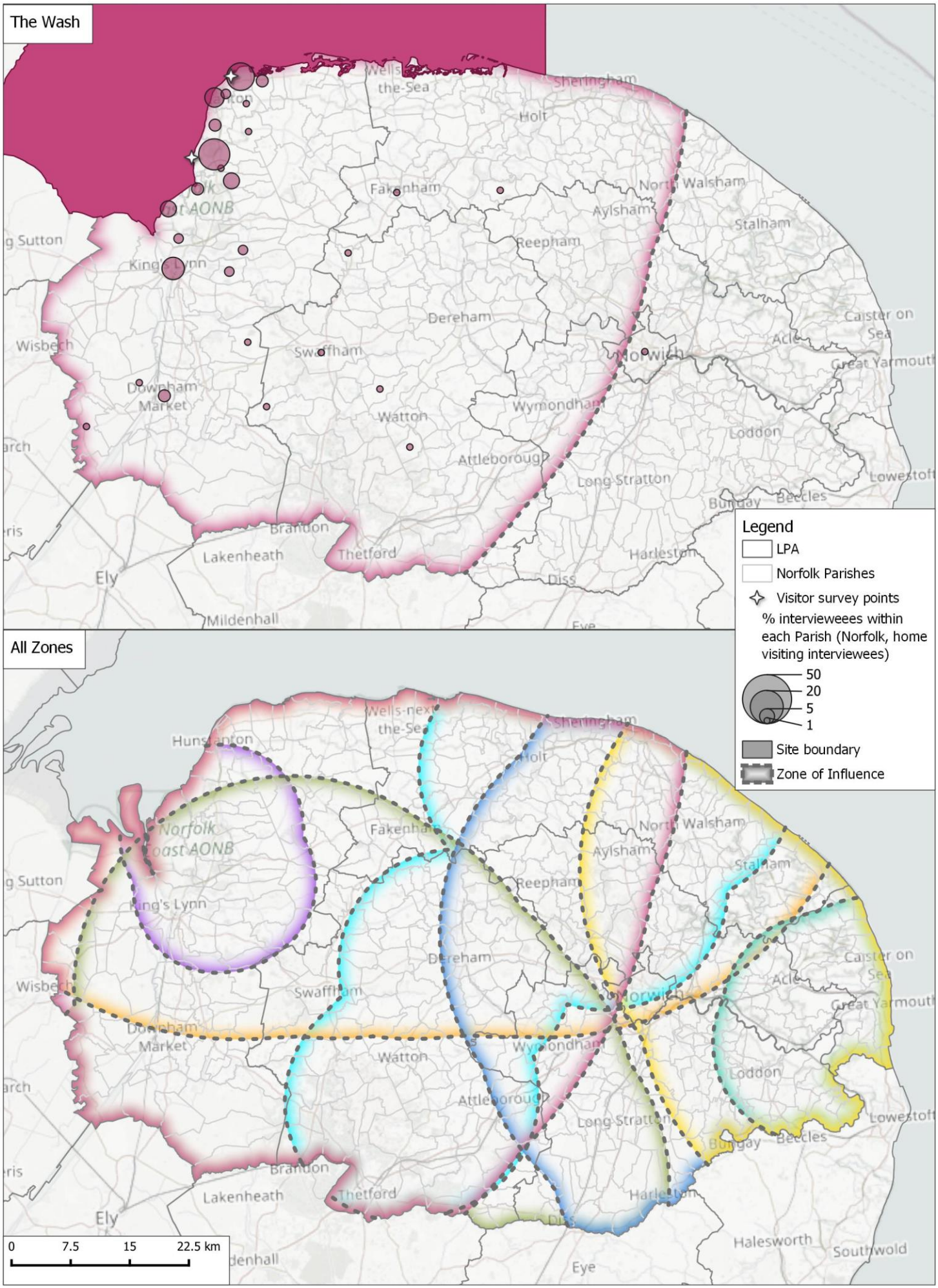
Map 5: Zones of Influence at The Wash and for all areas combined.



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Application of zones

2.6 As Map 5 shows there are potentially areas where 5 zones overlap, much of the County falls within 3 zones and no areas are outside any zone. Given the complexity and scale of the zones, as shown in Maps 2-5, a tariff approach that is directly linked to which zones a given development falls into is too challenging to implement and would lead to some small areas where there are multiple zones that overlap (in the centre of Norfolk) paying a much higher contribution than others. This would potentially be disproportionate and unfair as the areas where many zones overlap are typically set some distance back from those sites, and therefore it is perhaps to be expected that recreational use will be relatively infrequent to particular destinations and thinly spread. For example, residents in new development in Norwich might be expected to make occasional visits to the East Coast, the North Coast, the Broads, the Brecks or the Wash, while new residents in Wells might well make the same overall number of visits, but largely focussed on the North Norfolk Coast.

2.7 Another challenge with the zones relates to the geography of Norfolk and the shape of the coastline in particular. The large draw for the eastern side of the Wash is largely a result of visitors coming from outside Norfolk and from the west (see Map 6 in Panter, Liley and Lowen, 2017). While we have drawn the zones in terms of a set radius around the European sites, it does appear that there are relatively few people visiting Snettisham, Heacham etc from east Norfolk and many of the further postcodes are actually towards the centre of the Country (from locations such as Peterborough), potentially reflecting a pattern of use where people are visiting their nearest coastline.

2.8 The GIRAMs advocates a single, county-wide zone of influence and set tariff. That approach is now established and is also assumed for this Plan. There is a risk with this approach, however, that developer contributions are not then linked spatially to where the impacts occur, and for example developer contributions from King's Lynn might end up being used to fund mitigation measures at Breydon Water. These risks can be reduced by regular checks of the level of housing growth within different zones of influence (as shown in Maps 2 - 5), and mitigation delivery being targeted accordingly. This will require careful oversight. Risks will be further reduced if mitigation measures are (as far as possible) relatively widespread or evenly distributed and mitigation costs for different areas are relatively proportionate to the level of growth likely to come forward.

3. Mitigation measures

3.1 Mitigation comprises a suite of access management and monitoring projects for each of the areas covered in this Plan.

3.2 A suite of mitigation measures should function together to provide confidence that impacts arising from recreation have been prevented. A combination of measures working together reduces risk and builds in contingency if some measures do not perform as well as envisaged or there is a time lag associated with the effectiveness (e.g. measures that are designed to change behaviour may take time to become accepted). Other measures can still be functioning in the short term whilst others are revised or become more effective.

3.3 The aim of the mitigation is to allow a conclusion of no adverse effects on integrity to any of the relevant European sites from recreation, as a result of the relevant authorities' Local Plans, alone or in-combination with other plans or projects.

Identification of measures

3.4 Many of the European sites are looked after by a range of organisations. Mitigation measures need to integrate with the current management and aspirations of those organisations. It is important that any mitigation is both robust and deliverable by organisations on the ground. In order to identify the capacity and scope for suitable measures that could be rolled out following confirmation of funding, Footprint Ecology circulated an online questionnaire to all stakeholder organisations during August/September 2023. Stakeholders comprised all relevant Local Authorities, Natural England, Environment Agency, Forestry England, Broads Authority, Wash and North Norfolk Coast Partnership, a range of site managers/owners (including the RSPB, Norfolk Wildlife Trust, and the National Trust), boat hire organisations, and umbrella representative organisations (such as the Country Land and Business Association).

3.5 The questionnaire asked those contacted to identify projects that could be delivered by them, or partner organisations, to mitigate impacts of recreation arising from housing growth upon European Sites. Respondents were invited to submit as many projects as they wished, with each submission including a justification for the project and a breakdown of initial capital and rolling costs, as well as an approximate project lifetime.

3.6 Following receipt of the completed questionnaires, five site-specific workshops were held with stakeholder organisations between 14th and 21st September 2023. Discussion within the workshops led to the refining of some of the proposed

projects and allowed for synergy between stakeholder organisations. Subsequent one-to-one conversations were also held with a small number of key stakeholders who were unable to attend the workshops. Finally, a range of additional project ideas were generated by Footprint Ecology following further analyses of the workshop and one-to-one discussions.

Proposed measures

3.7 We have therefore identified a set of measures, with associated approximate costs, that provide a package of mitigation for all the sites. The combined costs attributed to this package allow us to set a suitable per dwelling tariff that can be applied across the county in order to fund the mitigation. However, it is important to note that some of the projects represent initial ideas and have an indicative budget associated with them. Some are relatively short term and small-scale while others are larger scale, complex projects. Given that mitigation will be funded by developer contributions, much of the funds will not be available for many years, by which time it may be that project costs will have changed, the design of a project may need to shift and some projects may even be less relevant as priorities change. As such, the proposed measures are indicative at this stage and may need to change with time. The measures have largely been proposed by relevant organisations or suggested in the workshops and therefore there is reasonable confidence that they can be delivered.

3.8 A summary of the proposed project ideas, including the European Site to which they are relevant and a justification for their proposal, is provided in Table 4. Costs for measures are summarised in Appendix 1. The codes provided in the first column of Table 4 allow direct cross-reference with the same projects detailed in Appendix 1.

3.9 It should be noted that there are no projects that have been specifically identified for Roydon and Dersingham or Breydon Water and relatively few projects relating to the Valley Fens. However, mitigation for housing growth at these sites will be addressed through the suite of projects that cover all sites and there is scope for further projects to be added over time.

Table 4: Summary of mitigation measures. The implementation column uses the following codes: I - Immediate (quick wins and easy to implement), M - Medium term (projects that may require further build-up of funds or longer lead in time) and L Longer term (projects requiring long lead in time, preparation or where there are further checks or steps needed). Projects are categorised according to the following types: A Small/temporary infrastructure, B Significant infrastructure project with long term benefit, C Direct on-site engagement, D SANG type project, deflecting visitors away from European site (but linked to European site rather than totally discrete), E Off-site engagement, F Monitoring, G Review or investigative projects to determine further details around mitigation delivery, H Support for organisations delivering mitigation and collaboration. Blue shading indicates projects that are initial priorities for delivery.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
All sites								
A1	County-wide dog project	Staffed project with membership, with targeted work around dog ownership and walking in the local countryside, with pop-up events, posters for vets, and some training events.	Range of organisations	Dogs are key issue and need to influence people's behaviour. This provides a positive and proactive means to do so. Delivered strategically and cross Norfolk basis so mitigation benefit to all sites		I	E	Other projects such as Dorset Dogs, Devon Loves Dogs and work by Bird Aware Solent provide useful context and case studies.
A2	Gazetteer of dog walking sites	Online resource highlighting locations to walk dogs and expected behaviour	Range of organisations	Positive measure to promote robust sites and highlight ones with particular issues.		I	E	Dynamic and easily updated resource that allows site managers/owners to provide specific instructions and guidance.
A3	Visitor monitoring at relevant sites	Visitor surveys to identify how people are using sites, routes taken, and awareness of nature conservation issues. Potentially involving counts (e.g. of vehicles) as well as interviews	Range of organisations	Monitoring picks up trends and changes at sites and informs future management/mitigation.		I	F	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
A4	Online hub for reporting problem behaviour by light aircraft	Creation and promotion of an online hub for the public/site managers to log problem behaviour by light aircraft, with data monitored by Delivery Manager and used to directly approach relevant flying clubs, airfields etc if and when problems emerge	Range of organisations to be involved; uncertainty around how and where to host	Disturbance impacts to qualifying bird species/assemblages from light aircraft identified for the East Coast, Breydon Water, and The Broads, but also has potential to impact North Norfolk Coast and the Ouse Washes.		M	F	Aim to achieve a simple system that can document any incidents and allow them to be followed up.
A5	County-wide car park review (capacity, charging, economy, coastal change, etc)	Full review of car parks within/adjacent to European sites, to identify scope for changes in management, charging, implications of coastal change, etc. Focus on coastal strip from King's Lynn to Great Yarmouth, including parts of the Valley Fens and the Broads and Dersingham/Roydon. Aim to highlight where changes could influence visitor use.	Range of organisations	Car parks provide the first point of access to most of the European Sites under consideration, and their capacity/charges may impact their level of use and subsequent access.		M	G	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
A6	Norfolk focused events for stakeholders	Networking/knowledge sharing events which will allow case studies/best practice/lessons learned to be shared between stakeholders and/or land managers. Potential for events to be annual and could be run as a mini conference, with scope to call for future projects	Range of organisations	Events will allow evidence-based mitigation to be shared between site managers/organisations, critically providing opportunities to ensure consistency across organisations (e.g. in signage and messaging), allow issues to picked up and tackled strategically and ensure best practice is rapidly adopted.		I	H	
A7	Site ambassador (volunteer) network and engagement training	Identification, training, and support of local amkbassadors via in-person events, alongside coaching for both Ambassadors and site staff in how to engage with the public.	Range of organisations	Investment in local people and engendering a sense of ownership will benefit interactions with other local site users, potentially of increased value at smaller sites (e.g. component units of the Norfolk Valley Fens). Training could cover how to approach people on reserves, messages for particular audiences (such as dog walkers) and health & safety issues. Events could allow networking, ensure consistency across sites etc.		M	H	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
A8	AONB comms position (covering whole coast)	Post to produce engagement material and projects to promote the coast as a single protected landscape (rather than component sites) with certain behaviours expected of those using it. Project to explore ways to influence people before they leave home through social media, web etc.	Norfolk Coast Partnership	Promotion of the entire Norfolk coast a single protected site will lead to similar behaviour across site boundaries.		M	E	Role work potentially to cover from King's Lynn to Great Yarmouth and include some inland areas
A10	Delivery Manager	Post to oversee infrastructure works, budget oversight, ensuring mitigation spatially relevant to housing growth	Norfolk Trails, Norfolk County Council	Post neessary to drive works forward and manage budget	Project manager post necessary over strategy period to ensure projects are delivered and support partnership working	I	H	
A9	Fire consultancy support	Budget to cover review of fire management plans and vulnerability of sites and potentially extending to training and joint working to ensure all prepared	Range of organisations	Ensures joined up approaches to fire risk and provides confidence that suitable measures in place		I	H	Rolling across multiple years with scope for different reserves, site teams etc to draw on external help and advice. Focus should be bringing organisations together and Brecks probably highest priority with also need to include reedbeds, woodland and range of other areas/habitats

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
A11	Monitoring strategy	Monitoring strategy to set out how ecological and recreation monitoring will fit together to inform case studies, improve effectiveness and inform mitigation delivery	NCC	Strategy will be necessary to ensure ecological and visitor data can be combined effectively and the data available to ensure mitigation targeted and effective. Outputs from monitoring likely to be used by a range of parties		I	F	
A12	Project specific monitoring	Flexible budget targeting selected example projects, allowing data to be collected on visitor impacts, ecological responses and mitigation effectiveness. Results used to inform future mitigation delivery and best practice.	NCC	A selection of projects should have detailed monitoring established to show how they have changed behaviour, reduced impacts etc. These can provide case study material to help inform future delivery, selection of future projects and share best practice	Dependent on monitoring strategy	M	F	Monitoring strategy would inform how money spent and delivery manager would be able to target the resource as needed. Money spread over a number of years
Breydon Water								
BW2	Project to assess frequency/impact of waterskiing in Breydon Water SPA	Project will gather evidence which will inform potential future regulation of waterskiing within the SPA and inform design of mitigation.	Broads Authority	Will reduce disturbance to the SPA through greater clarity of issues and how best to address		I	F	Follow-up measures to address outcomes from study will need to secured as appropriate
East Coast								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC1	East Norfolk beach-nesting birds: Team Leader	Permanent, year-round, role to oversee planning and delivery of the protection of Little Terns associated with the Great Yarmouth North Denes SPA.	RSPB	This role manages the staff delivering the protection work on the ground, overseeing effective resource deployment to protect Little Terns associated with the Great Yarmouth North Denes SPA. The Team Leader role is permanent, year-round and enables key relationships to be developed that builds trust. This is essential for successful delivery of the project.	Existing post that can be carried forward. This role will need to be ongoing given the nature of disturbance impacts on the coast and complexities of the logistics of the tern protection but may be able to support work on other stretches of the coast as the east Norfolk work develops.	I	C	The RSPB has been managing the little tern colonies within the Great Yarmouth North Denes SPA since 1986. They have been developing the project to create more opportunities for volunteers to get involved and continue to work closely with communities. The Team Leader retains oversight on the work, deploying the team resource where it is most needed and being able to respond to issues through the season without impacting the management undertaken by the wider team.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC2	East Norfolk beach-nesting birds: Community & Volunteer Officer	Role will oversee the development of a volunteer team, and provide community support and an event programme to support the development of suitable behaviours around beach-nesting birds, notably protection of Little Terns associated with Great Yarmouth North Denes SPA.	RSPB	Management of the little tern colonies in east Norfolk requires a significant volunteer team to work alongside the wardens. This ensures that the staff time can be focussed on hours that are harder to find volunteer support (e.g. night shifts). The volunteers also enable the project to increase its behaviour change influence through attending events and supporting the communications programme developed by the CVO.	Individual already in place. Permanent, year-round role to maintain relationships and ensure volunteers are kept engagement outside the breeding season to avoid having to start afresh each season.	I	C	The RSPB has been managing the little tern colonies within the Great Yarmouth North Denes SPA since 1986. The role is essential for successful delivery of the project. The Community & Volunteer Officer manages all the volunteer support needs and work in the community. We have trialled this role in 2023 and since May have had 52 volunteers supporting the work, with c.1800 hours of time given to the work.
EC3	East Norfolk beach-nesting birds: Senior Beach Warden	Annual post running from March to end of September to support preparations for setting up Little Tern fencing, signage, and associated infrastructure, support inductions for Beach Wardens and volunteers, help manage colony takedown, and support end of season reporting.	RSPB	This role is needed to provide expertise and support to the Team Leader on effective management of protection fencing, monitoring work and ensure staff welfare needs are met. The early start of the role is essential to ensure they are suitably inducted and equipped to support the Team Leader through the season.	This role has been tested in 2023 and was highly effective in supporting and directing the wardens.	I	C	The Senior Beach Warden role is for March to the end of September and provides support to the Team Leader and Community & Volunteer Officer through the breeding season. They oversee the day-to-day work of the Beach Wardens and ensure the team has the right resources.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC4	East Norfolk beach-nesting birds: Beach Wardens	Beach wardens to engage with beach users and limit disturbance to Little Tern colonies.	RSPB	Support management and monitoring of little tern colonies with the Great Yarmouth North Denes SPA. Set up colony infrastructure and takedown at the end of the season. Engage with beach users to encourage suitable behaviours around the colonies. Cover night shifts to ensure 24/7 protection from egg thieves and groups using the beaches at night. Employed from April through to September.	The Beach Wardens will be continually needed, especially to support 24/7 wardening of the colonies. The recruitment process is already established and will take place annually.	I	C	The Beach Warden roles are essential to engage beach users and develop effective behaviour changes around beach nesting birds. They reinforce the messaging around signage and ensure that fencing is maintained. 24/7 wardening is needed on beaches as egg thefts continue to occur, as well as vandalism.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC5	East Norfolk beach-nesting birds: Fencing	Fencing to protect up to three Little Tern colonies in East Norfolk: including Eccles, Winterton and Great Yarmouth North Denes.	RSPB	A three-tier fencing structure is set up around little tern colonies. These also provide additional protection to ringed plovers. Poultry netting provides a barrier for hedgehogs and small ground predators. 7-strands of electric wires surround the outside of the poultry netting to provide protection from larger ground predators such as foxes, deer and dogs that could push through the fence. A rope cordon is also positioned around the main fence to keep beach users away from the core colony area and additional areas of importance for chicks using adjacent vegetation.	Fencing would last 2-3 years, but would then need to be replaced to ensure it remains effective each year. This is especially important for the steel wire that corrodes and becomes encrusted with salt which impacts its ability to carry a charge.	I	A	Fencing little tern colonies is essential to provide protection from ground predators and to keep beach users at a suitable distance from the colony. Wardens are needed to ensure the fence is maintained and remains effective (e.g. ensure protection from tides, replace after vandalism, addressing any short circuiting limiting the effectiveness of electric wires (e.g. through salt accretion or touching on marram grass)).

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC6	East Norfolk beach-nesting birds: Signage	Provision of fixed and mobile information and warning signs along East Coast beaches/in proximity to Little Tern colonies.	RSPB	Fixed signs will be used to provide key information about the beach area and inform visitors how they can share the beach in a way that will not disturb the little terns and other beach nesting birds. A-frames will be used to provide information to beach users that can be moved up and down the beach with the tide. Smaller signs will be used to direct beach users around the colony and also provide warning of the electric fencing.	It is expected that smaller signage and the A-frames would need to be replaced within five years due to wear and tear and the need to keep messaging relevant. Larger panels may last for longer subject to information remaining relevant.	I	A	Signage is a tool that works in conjunction with fencing and wardening to inform beach users of the importance of the area for little terns and provides advice on how to use the beach area in a way that meets their needs as well as protecting the little terns and other beach-nesting species from disturbance. Signage on its own is not an effective protection measure, as it is often ignored and removed if wardening is not included as part of a wider package of measures to address recreational pressures on coastal sites.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
EC7	East Norfolk beach-nesting birds: welfare facilities for staff and volunteers	Shelter and toilets for staff and volunteers wardening East Norfolk Little Terns.	RSPB	Basic welfare facilities are required for staff and volunteers protecting the little tern colonies from disturbance. This will require a portacabin at Winterton and portaloos at Eccles and Winterton annually.	The RSPB already has the contacts to bring in a portacabin and portaloos. This includes the means to get them to the beach and off again. This would be required annually for the duration of the Local Plan period and beyond.	I	C	The Welfare facilities are an essential requirement to ensure that the health and safety needs of the project are addressed. The portacabin also provides a secure place to store equipment close to the colony for maintenance purposes.
EC8	Vegetation monitoring at Winterton Dunes NNR	Habitat & vegetation communities mapping, including work to determine quality/species assemblage along pathways/desire lines to identify any change in level of trampling/enrichment impacts.	NE	Will provide feedback loop to inform, target and hone mitigation measures	Surveys repeated at 5 year intervals	I	F	Potential to include use of drones and to supplement condition assessments
Norfolk Valley Fens								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NVF1	Buxton Heath car park upgrade and signage/ waymarking	Formalising of parking spaces within car park and removal of informal parking options, alongside provision of improved signage and waymarked trails around perimeter of site.	Norfolk Wildlife Trust	The site is close to Norwich and therefore likely to attract a larger amount of visitor pressure than other Valley Fen sites. Scope to make sure parking robust for long term and fixed amount of parking a means to limit large numbers of visitors. There are currently no waymarked trails around the site, and promotion of the perimeter path would minimise the number of visitors accessing potentially less disturbed/accessible central areas of the site.		M	B	Any works to perimeter path needs to be carefully undertaken to ensure no impact to SAC. Project a suggestion from workshops and would require Wildlife Trust and Natural England to develop further
NVF2	Improvements to car park, path resurfacing and installation of sculpture trail at Holt Country Park	Improvements to existing car park surfacing to promote parking there, and creation of sculpture trail with aim of diverting people within the Country Park (and away from neighbouring Holt Lowes).	NNDC	Will reduce off-site parking adjacent to Holt Lowes and decrease the number of visitors accessing Holt Lowes through the Country Park by focussing visitors in the country park.		M	B	
NVF3	Provision of dog bins	Provision of single dog bins at smaller component sites within SAC and funding for collection (costed at 3 bins/sites currently).	Relevant local authorities	Will reduce incidence of dog fouling/contamination along circular walks within smaller component sites.		I	A	
North Norfolk Coast								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC2	Seasonal dog restrictions	Employment of seasonal beach wardens, alongside interpretation panels, cordoning of sensitive areas with ropes and chestnut paling, and numerous social media accounts.	Holkham Estate	Recognised decline of various shore birds and the impacts dog disturbance has on them during the breeding season.		I	C	
NNC3	QR codes for information panels on public footpaths	Installation of small-scale info posts/panels along footpaths crossing farmland or managed woodland/marshland/etc, with a series of QR codes explaining what farming practices can be seen, what environmental/conservation measures are in place, and information about the history, geography and geology of the site.	North Norfolk Coastal Group and River Mun Catchment Group	The information panels would give the wider community insight into the work of the land managers - both farmers and conservationists. This would serve both as an educational tool but also a means of lessening the gap in understanding between the public and the people farming or managing the land. It would also help to explain why some land is fenced off, why dogs must be on leads at certain points. It could be utilised in other ways - directing people on walks, giving information about services (cafes/toilets) nearby. They would serve as a conduit of information for people using the area for recreational purposes.	The process would be relatively quick to set up, then the updates to information would take place regularly and would be the responsibility of the land manger correspondin g to each QR code info point.	I	A	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC5	Interpretation panels at Branodunum Roman Fort	Provide 6x interpretation panels at Branodunum Roman Fort, adjacent to the designated site.	National Trust	Panels will explain the importance of the area and educate visitors, whilst promoting dog walking/walking space off the linear route next to the designated site.	Timing could be linked with new National Trust boardwalk	I	D	Some National Trust funds would be available and hope to seek other external funding
NNC6	Signage audit and installation of interactive interpretation points	Audit of signage on Coast Path, aligning messaging and rolling out interactive signage with improved accessibility (including opportunities for Fixed Point Photography monitoring).	Norfolk Trails, NCC	Inform users of the path of the special qualities of the environment they are walking through, but in an immersive, interactive way.	Phased approach. Initially trialling along stretch 4 of ECP then roll out on annual basis.	I	A	This project is scaleable. Priority sites/sensitivities can be identified and then interpretation rolled out accordingly and according to funds available / time scales available.
NNC7	Path surface improvements & bridge provision on Stiffkey Saltmarsh	Surface upgrades to two Rights of Way paths & installation of bridge on Stiffkey saltmarsh.	National Trust	Prevent further trampling of coastal saltmarsh paths & allow eroded areas to recover by addressing desire lines and keeping people on linear routes	Linked to dedication of public right of way to north of former bridge location	M	B	Some National Trust funds would be available and hope to seek other external funding

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC8	Accessible path at Morston Quay	Creation of new path connecting buildings and circular boardwalk to enable people with additional needs to experience the marsh without resultant trampling impacts.	National Trust	There is an existing desire route being used by visitors. This project would provide formalised but focussed route, to reduce trampling of marsh (e.g., footpath braiding) yet provide a good visitor experience. There studies from other parts of the country that show path improvements work to focus use, reduce spread of footfall and reduce recreation impacts	Would need to be installed at least sensitive times (e.g., between breeding bird and wintering periods)	M	B	Some National Trust funds would be available and they hope to seek other external funding. Mitigation benefit would depend on the route, design and how much tourist focus the path may have
NNC9	Interpretation materials for visitors at Morston Quay	New build room on existing toilet block to provide visitor welcome with interpretation about wildlife value and need to help protect area and impact coastal change.	National Trust	Explain importance of area and educate visitors	New build in 2024	I	A	Some National Trust funds would be available and hope to seek other external funding
NNC10	Review of dog restrictions around Blakeney Harbour and Freshes and implement findings	Consultant review of existing management measures (e.g. dog restrictions, signage), identification of current impacts of dog disturbance, and provision of recommendations for improved management.	National Trust	Dogs are believed to be having a significant impact, particularly on nesting and wintering birds. Bird population would benefit from reduced disturbance		I	G	Would form part of wider measures to mitigate visitor disturbance on the North Norfolk Coast

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC11	Seasonal wardening around Blakeney, Blakeney Point, Stiffkey, and Brancaster	Seasonal staffing (rangers/wardens) to help manage disturbance issues (e.g. enforce dog restrictions, share wildlife messaging, litter picking, etc).	National Trust	Evidence shows direct intervention is the most effective means of managing visitor disturbance. Increased visitor pressure means greater staff presence required. Seasonal staffing suggested as coast is much busier in spring and summer		I	C	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC13	Establish "Gateway to Blakeney Point"	Visitor welcome hut to be positioned at Cley Beach end of shingle ridge. Hut will provide a base out of which seasonal rangers/volunteers can operate to welcome visitors to Blakeney Point, explain the importance of the site, and set expectations about standards of behaviour (including zonation of access - restriction to vegetated shingle & beach/marsh). New signage to welcome visitors to Blakeney Point and make it clear that it is important for wildlife and looked after by National Trust.	National Trust	Blakeney Point is one of the top 10 most important sites for wildlife cared for by the National Trust. However, the main access point (Cley Beach car park) is run by Norfolk Wildlife Trust. Rare birds nest very close to the car park and the whole of the Point features sensitive plants and animals. Visitors need to be alerted to the fact they are on a very important and sensitive site for nature and expectations about how they should behave whilst visiting should be established early in their visitor journey. Signage is not enough - site is significant enough to justify greater staff presence and there is already a good pool of volunteers to draw on to support this work.	Signage/hut put in place before breeding season, then staff recruited ready for that breeding season.	M	C	
NNC14	Develop visitor offer at Friary Hills (SANG)	Improve attractiveness of site as alternative greenspace via an increase in picnic space capacity (including vegetation cutting and installation of picnic benches) alongside new interpretation signage and other visitor infrastructure.	National Trust	Increased visitor pressure on Friary Hills would be acceptable and unlikely to have a significant impact. This could help relieve pressure on other more sensitive sites close by.		I	D	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC15	Wardening and signage on Stiffkey Saltmarsh	Use of seasonal (potentially assistant) rangers/volunteers, signage, and path resurfacing to zone/seasonal restrict access and help manage visitor disturbance in the Stiffkey Marshes/Five Bridges area.	National Trust	Stiffkey Binks, to the north of Stiffkey Marshes, is an important breeding area for a number of ground-nesting species, notably common tern, little tern and potential for sandwich terns. This area should be managed to provide breeding habitat for the tern metapopulation of the North Norfolk Coast. Initial survey results indicate that removal of Stiffkey Bridge in 2022 may have contributed to improved breeding numbers, suggesting that visitor disturbance when the bridge was in place may have limited breeding numbers. Continuing to manage disturbance once the bridge is replaced could help to sustain these numbers (although this is uncertain).	Recruit staff before the March of the year we wish to	I	A	
NNC16	Signage and zoning of access within Young's Land (SANG)	Mow paths through long grass areas on site to improve access/recreation use within Young's Land.	National Trust	Increased visitor pressure at Youngs Land would be acceptable and unlikely to be have a significant impact at Youngs Land. This could help relieve pressure on other more sensitive sites close by.		I	D	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
NNC18	Blakeney Point - water presence (additional capacity)	Seasonal staffing, fuel & maintenance of existing NT boat and upgrades as required.	National Trust	Seasonal staffing (rangers/ wardens) to help manage disturbance to seals from paddle boarders/ kayakers. There is also a health and safety risk to manage, as the tides/currents around Blakeney Point are quite strong/turbulent/unpredictable.	Staff need to be recruited well in advance - before the March of the year presence required on the water.	M	C	
NNC20	Further promotion of the Coastal Code	Co-ordination of online promotion and signposting across partner organisations and production dissemination of leaflets to relevant hubs (e.g. visitor centres, etc).	Norfolk Coast Partnership	Promotion of coastal code across composite sites will inform behavioural change at a strategic level.		I	E	Potentially aligns/falls within scope of AONB comms position. Code is produced and already in use, potential for wider disemmintation
Ouse Washes								
OW1	Monitoring surveys for detection/spread of invasive species and watching brief on recreation use	Monitor for presence/spread of invasive aquatic/riparian plant species via recreation activities.	WWT	Establishment of invasives (e.g. Floating Pennywort) can negatively effect the integrity/functioning of aquatic ecosystems within the European site. Patterns of use may change in future		M	F	
The Brecks								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRE1	Enhancements to Rights of Way network	Work to make routes in more robust areas more appealing to visit (e.g. increased parking, signs, and route maps etc) and more sensitive routes more robust (e.g. planting up gaps in hedges to provide screening along linear routes).	Range of organisations	Will limit disturbance to relevant bird species where footpaths provide access through relevant habitat and by enhancing other areas potentially also deflect use		M	A	Informed by review (BRE3)
BRE2	Promotion of footpaths and walking routes	Online and printed material promoting robust/lower impact routes.	Range of organistions	Could include online promotion (e.g. gazetteer, project A2) and more local promotion through leaflets, apps, Parish Councils etc		M	E	Informed by review (BRE3)
BRE3	Review of footpaths	Review of footpaths with aim of identifying robust routes to promote and vulnerable paths to protect.	Range of organistions	Assessment of path network and site checks required to inform BRE1 and BRE2		I	G	
BRE4	Strengthening of CRoW access restrictions	Use of signage and other infrastructure to ensure that site users are always clear as to where and when access is permitted (e.g. seasonal restrictions at Cavenham Heath).	NE	Access restrictions provide fundamental protection and are established. Potential need to ensure clarity for new visitors and that the most vulnerable sites have signage etc in place and at right locations		I	A	Likely to require regular checks of existing signage
BRE5	New dog bin installation at Cavenham Heath	Installation of two new bins, plus funding for regular collection, at Cavenham Heath.	NE, WSDC	Dog bins provide a means to ensure some of the impacts from nutrient enrichment and dogs is reduced		I	A	Cavenham particularly sensitive given locations of development

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRE6	Rabbit focus group	Support to establish group that can coordinate monitoring, research, and management of rabbit-related projects/interventions.	RSPB, NE, Forestry England, SWT and others	Rabbits are key to maintaining short sward and bare ground patches. Decline in Rabbit population as a result of disease has had marked impact. Access, particularly dogs, potentially part of the problem. Solutions likely to be complex and require some coordination. Monitoring important.		I	H	
BRE7	Signage and interpretation across the Thetford Forest Estate SSSI/SPA	Installation of multiple long-term signage/interpretation panels/info boards across the Thetford Forest Estate SSSI/SPA, promoting the importance of the forest, highlighting forest management techniques, providing forest landscape information, and historical points of interest, etc.	Forestry England	Improve visitor experiences and understanding of the landscape. Tackling on-going negative public behaviours with desire for an improvement in behaviours and more respectful recreational use. Promoting the forest as a source of well-being/green space for recreation to positively contribute to societal needs. Educate dog walkers and other recreational users on the ecological sensitivities.		I	A	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRE8	Rebranding & repurposing of a sensitive site (Santon Downham)	Rebranding of 'St Helens Picnic Site' to 'Santon Historical Site', including removal of existing signage and provision of paid parking ANPR (solar-powered), installation of interpretation boards detailing trails and historical sites of interest, and protective work to the riverbank to reduce erosion.	Forestry England	To reduce impacts of increasing number of visitors, damage to the riverbank and increase in dogs at the site Habitat loss and decrease in habitat quality and increased disturbance for ground nesting birds Increase in vehicles has impact on ecosystem protection. Decreases in breeding density and productivity Increase in people and vehicles has caused damage to Historic Ancient Monument - therefore need to effectively manage and educate the visitors to site sensitivity		M	B	
BRE9	Increased ranger coverage within Thetford Forest/surrounding area	Increased ranger provision promoting a face-to-face presence on site, increased scope for visitor interactions, and promotion of responsible access behaviour.	Forestry England	Face-to-face engagement provides key mechanism to influence behaviour and inspire visitors about wildlife		I	C	Able to target problem behaviours and issues (e.g. dogs on leads). Covering large area but ability to roam and target locations where issues arise.
BRE12	Interpretation panels at Cavenham Heath	Installation of 4 to 5 new interpretation panels will further inform site users about the value of the site and expected behaviours.	Natural England	Part of pecific project at Cavenham to address increased recreation pressure with new signage to address specific concerns at this location		I	C	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRE13	Fenced dog exercise area at Lynford Arboretum extension	Will comprise the fencing of two (currently open) sides of an already partially fenced location and the installation of interpretation boards explaining the reason for the site's creation and expected responsible behaviour within it (minimal infrastructure with maximum gain and engagement).	Forestry England	Creates a designated dog walking/exercise location within the forest estate. Takes impacts of dog walkers away from other sites/locations and puts them into one managed area. Reduction of impacts of visitors and dogs to sensitive locations within the forest. Reducing habitat degradation and visitor/animal disturbances to habitats. Reduces dog fouling issues across the wider estate and habitats. Dog walkers have security of knowing their dog(s) are in a safe managed area. and cannot escape. The presence of dogs in this location will make deer uneasy and therefore more chance of getting natural regeneration of planting etc from reduced browsing pressure by deer. Mitigation benefit will depend on how well promoted and used this is and assumption that it would be free.	The area identified is due for felling in late 2024 so this gives a quick win in delivery	I	A	This would be a high impact - low cost project that sees really positive engagement with the public and opportunity to educate visitors.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRE14	Installation of hard (barrier) infrastructure at selected access points	Installation of infrastructure that limits certain types of vehicular access to the forest at key points.	Forestry England	Reduction of human and vehicle impacts to habitats causing disturbance, damage/degradation, anti-social behaviours and irresponsible use of the forest and it's habitats for recreation that is polluting - motorbikes for example. This is turn causes species to move/relocate from areas.		M	A	We have regular issues with vehicles in the forest causing disturbance/damage to habitats and wildlife, along with other responsible visitors using the forest for quiet enjoyment/appropriate recreation.
The Broads								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO3	Replacement of Visitor Observation Hide at Strumpshaw Fen RSPB Reserve	Replace existing, very aged, viewing structure with a new wood build (including foundations sunk within peat soils).	RSPB	The fen hide at Strumpshaw is extremely well used being the nearest location to the reception area, which oversees the fen. Strumpshaw Fen is one of the most important locations for visitors to see wildlife and understand the importance of the work RSPB does in the Broads alongside other conservation organisations. Provision of interpretation (live and static) enables RSPB messages and other Broads messages to be conveyed describing the threats to nature from pollution, climate change, sea level rise, invasive species, poor use of the water resource. Alongside the threats, solutions to these issue can be conveyed to hopefully bring about behaviour change and encourage sustainable use of natural resources.	Demolition and construction would best be undertaken outside of the breeding season e.g. March through to end July and preferably before winter. So ideally August - October.	M	B	Hide has particular engagement and education role. Mitigation benefit may require further clarification before funding.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO5	Resurfacing of overflow car park at Strumpshaw Fen RSPB Reserve	Improvements to the surface of the car park will create an all-weather facility able to cope with increased visitor numbers.	RSPB	Strumpshaw Fen is more robust site where access can be promoted to the Broads and the infrastructure is such (and already in place) that impacts can be absorbed. The overflow car park is essentially a meadow with open weave matting installed as a surface layer to spread load and improve traction. This solution is not sustainable and regular lifting of the matting is needed to retain the benefits. By installing a more resilient and permanent solution e.g. linked open cell matt structure with aggregate and permeable membrane a more effective surface would be maintained year round. On most days the overflow car park is used and on busy days is full to capacity. Increased visitor vehicle use requires a more robust surface for this premier site.	Ideally installation would best be completed when conditions are drier and before or after the main visitor season - so March or October. However, due to climate change a more flexible approach may be needed to make the most of in-year weather conditions.	M	B	Will need specific contractor and external project manager. Further checks may be necessary to clarfiy mitigation benefit prior to funding awarded.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO6	Upgrade of visitor trails at Strumpshaw Fen RSPB Reserve	Installation of an all-weather surface along approx. 1.5km of trail to enhance access.	RSPB	Strumpshaw a more robust location and the concentration of visitor facilities ensures recreation impacts managed and contained. The trails are currently a soil and turf design with extremely short sections of planking to bridge the worst boggy areas. The whole fen trail is low lying and surrounds the wetland with on edge running parallel with and directly adjacent to the River Yare. Flooding is occasional and in winter sections of the trail become impassable. In order to maintain a safe, all-year round surface to allow existing and new visitors to access the site to see wildlife the section of trail running along the Witton Run and sections adjacent to the R Yare are in desperate need of improvement.	Ideally installation would be best when surface conditions are reasonably dry and undertaken outside the main visitor season.	I	B	Probably most efficient to employ contractor/project manager to complete the project end-to-end. Being adjacent to the river and a reasonably wide waterway construction of 'panels' could be undertaken offsite and delivered to installation location by boat, thus speeding the process and minimising further damage to the existing trails. May require further checks to ensure mitigation benefit.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO7	Weavers' Way interpretation panels	Installation of 6x engaging interpretation panels with wildlife and/or heritage information about the Weavers' Way.	Norfolk County Council	An appreciation of the trail and its natural and cultural assets - engaging people to invest in their surroundings and understand its sensitive nature	This may be able to fit in and align with wider projects which could mean economies of scale and improve cost-efficiency	I	A	Trails such as the Weavers' Way are strategically important as they move people through the sensitive countryside on designated footpaths and encourage people not to damage the sensitive wildlife surrounding the trails - they also offer an alternative to the honeypot trails such as the Norfolk Coast Path. Good interpretation encourages dwell time and engages people about the importance of the landscapes they are passing through. We have had enquiries from parish councils along the route asking for upgraded interpretation as they can see its value
BRO8	Expansion of the electric boat charging network	Expansion of existing charging infrastructure to a wider number of mooring locations.	Broads Authority	Reduce oil and noise pollution from boats		M	A	
BRO9	Improve access within Hoveton Riverside Park	Improve access/management of all paths and canoe launch points within the site.	Broads Authority	Alternative provision for visitors to take pressure off the designated sites.		M	A	

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO10	Broads education and outreach project within local schools and youth organisations	A project working with local schools and youth groups aiming to build links between young people and their local protected environments.	Broads Authority	Project will increase ecological understanding and promote responsible recreational behaviour. The project will also develop links with school staff and parents, and promote the development of young person-led social action campaigns within schools and youth groups (which may be achieved in collaboration with established youth service providers and community groups). The campaigns will promote appropriate environmental messages and behaviours to local communities via social media and events, and the project will also develop local youth ambassador/ranger programmes leading to longer-term positive actions for local protected habitats and species via (e.g.) interpretation materials, surveys, litter picks, etc.		M	E	
BRO11	Establishment of Acle Bridge Hub	Creation of an Acle Bridge Hub, with accessible facilities and paths within the site.	Broads Authority	Alternative provision for visitors to take pressure off the designated sites.		L	B	May require checks to ensure effective as a mitigation measure

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
BRO12	Face-to-face engagement with boat owners/operators re: best practice	Funding for workshop/site visits to discuss best practice with respect to disturbance, damage, and pollution within protected sites.	Broads Authority	Reduce observed impacts via behaviour change/education.		I	C	
BRO13	Provision of environmental info packs on hire boats	Creation of paper-based info packs identifying wildlife sites/wildlife and how to minimise impacts.	Broads Authority	Reduce observed impacts via behaviour change/education.		I	C	
BRO14	Wider roll-out of decontamination facilities for boat users/hirers	Installation of watercraft decontamination facilities at an increased number of mooring sites (3 for purposes of calculation).	Broads Authority	Reduce scope for spread of invasive species and pollution incidents.		M	A	
BRO15	Broads Wildlife Engagement Ranger position	Role will pilot dog training sessions with existing providers, and provide wildlife and disturbance-related information to boat users/providers and members of the public. Role will also communicate TBC campaigns (e.g. "protecting the invisible", "slow boat to wildlife", etc).	Broads Authority	Will change the behaviour of dog and boat users/owners to minimise disturbance impacts around the target Broad SAC and Broadland SPA.		I	C	Potential crossover with BRO13 & BRO14. Scope to cover Breydon Water too
The Wash								

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
W2	Limits of Acceptable Change Study: Phase 2	Following on from the Norfolk Coast LAC: Phase 1 study (undertaken in 2022). Phase 2 will incorporate stakeholder workshops, visitor surveys, and a boundary extension to the previously mapped area.	Norfolk Coast Partnership	Management and mitigation of increasing visitor numbers In The Wash and North Norfolk Coast	Seasonal surveys. Time to implement management measures	I	G	This will be the next steps following the LAC study. Has previously received HMM Fund (development levies). This work will be complimentary to GI RAMS.
W3	Limits of Acceptable Change Study: Phase 3	Following on from the Norfolk Coast LAC: Phase 2 study. The study will focus upon the implementation of management measures.	Norfolk Coast Protected Landscapes, NCC	Mitigation and management of increasing visitor pressures in The Wash and North Norfolk Coast	Looking to implement long term change. Will include monitoring and adaption over 10 + years	M	G	This would follow the proposed Phase 2. Could be in the form of a pilot followed by roll out and support or could move straight to roll out (depending on results of Phase 2). The project will likely attract contributions in kind from land managers etc.
W4	Hunstanton footpath diversion	Diversion of an existing footpath running alongside Hunstanton Golf Course across the river to adjacent land, including the installation of 2x bridges, 3x interpretation boards, and viewing platforms.	Norfolk Coast Protected Landscape, NCC	Following the creation of wetlands on River Hun in 2023, diversion of footpath and creation of viewing platforms will allow people to view this with minimal impact to waders etc. Potential to disperse access away from other areas.	Permission to divert footpath can take 1 year	M	B	Match funding would be available.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
W5	Plovers in Peril: Project Officer	Project Officer role to develop, oversee, and deliver protection for Ringed Plovers and Oystercatcher in North-west Norfolk.	RSPB	Breeding ringed plover and oystercatcher numbers have declined in NW Norfolk. The project Officer will implement nest protection measures, including the development of a volunteer team to engage beach users to reduce disturbance. The project officer would be permanent and year round. This enables time for project development out of season. It also enables protection measures to limit disturbance to wintering wader flocks roosting on the beaches to be put in place.	The project is already being funded using mitigation funding from Kings Lynn & West Norfolk (but just for limited time window). The level of disturbance will require the presence of fencing and wardens for the foreseeable future.	I	C	Oversees development of nest protection measures, volunteer team, community support and event programme to support the development of suitable behaviours around beach-nesting birds, notably changing visitor awareness and understanding and some likely benefits with respect to the protection of little terns associated with The Wash SPA.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
W6	Plovers in Peril: Assistant Project Officer	Assistant role to the Project Officer to support monitoring and effective management of breeding beach-nesting birds.	RSPB	6-month role to support the Project Officer to effectively deliver the protection and behaviour change work	The project is already being funded using mitigation funding from Kings Lynn & West Norfolk (but just for limited time window). Ongoing funding needed to maintain protection work and continue to develop community engagement	I	C	The Assistant Project Officer role provides essential support to effectively deliver the project. By taking on the monitoring of the project this allows the Project Officer the capacity to develop the volunteer team and develop the community engagement element of the project. Wardening alongside the presence of fencing and signage is essential to effective protection for breeding and wintering species.
W7	East Norfolk beach-nesting birds: Fencing	Installation of (seasonal) post and rope fencing around beach-nesting bird nesting areas.	RSPB	Rope cordon to highlight breeding areas and keep beach-users away from nests to avoid trampling.	Project team already in place until 2026 to erect fencing, Funding needed post-2026	I	A	The fencing is needed to direct beach users along the beach and avoiding nests. This is in conjunction with wardens to reinforce message about suitable behaviours.

Code	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	Implementation	Type	Notes
W8	Plovers in Peril: Signage	Interpretation, information and warning signs.	RSPB	Signage needed to direct beach users away from nests and inform them of the need for the protection measures.	The project team already have a signage plan, but new signage is required. Signage and replacements will continue to be required.	I	A	Signage an important tool to convey messages. However, without wardens being present experience is that messages can be ignored. Signage is not sufficient on its own to effectively mitigate disturbance impacts, but is part of the toolkit to manage recreational pressures.
W9	Plovers in Peril: Welfare facilities – portaloo	Welfare facilities to support staff and volunteers.	RSPB	At the Snettisham end of the project area there is no toilet. This has welfare implications for the project team. Hiring a portaloo between April and September annually.	The project team already have plans in place for a portaloo but funding is required.	I	C	Provision of a toilet will support health and safety requirements for the project team and ensure the welfare of the project team.
W10	Path resurfacing and access improvements	Accessibility improvements at Holme NNR.	Norfolk Trails, NCC, NWT	Enhancing existing structures. Access for all, allowing continuity of access. Mitigate recreational impacts. Protects sand dunes, ground nesting birds	Timing based around natterjack season and consents	I	A	Consents would be required.
W11	Peddars Way Access Improvements	Addition of rest points, and installation of interpretation at key points, along the Peddars Way to encourage visitors away from the honey pot coastal sites.	Norfolk Trails, NCC	Reduce impacts of visitor pressures by distributing pressure to areas that can accommodate. Benefiting a wide range of sensitive sites in the West Norfolk area		I	A	This project will provide regular rest stops improving accessibility of stretches of the route. This project is scaleable in size / funds / times.

4. Implementation

Habitats Regulations Assessment (HRA) implications

4.1 This plan provides the confidence for local planning authorities, as competent authorities under the Habitats Regulations, that appropriate mitigation can be secured at the relevant European sites to address cumulative impacts from plan-led housing growth.

4.2 Local Plans and individual planning applications will still need to be subject to necessary checks through Habitats Regulations Assessment (HRA). Where likely significant effects are triggered (in the absence of mitigation) as a result of increased recreation, appropriate assessment will be necessary and this will need to show that appropriate mitigation is secured and in-place. As such, HRAs will need to be able to demonstrate that this plan, alongside any SANGs provision and the overall mitigation approach set out in the GIRAMS, are implemented and working, with the mitigation measures appropriately targeted to the housing coming forward.

Types of development

4.3 The Action Plan relates to residential development and some other types of use including some tourist-related development, as summarised in Table 5.

4.4 Contribution to the strategic mitigation will enable applicants to secure the appropriate avoidance or mitigation measures and enable the relevant Planning Authority to conclude through appropriate assessment that there is no adverse effect on the integrity of the relevant coastal European sites from recreation.

4.5 The strategic mitigation is established primarily to address the cumulative and in-combination effects of widespread residential housing growth. Furthermore, mitigation will also be relevant to non-residential development, including tourism but due to the varied nature of potential applications these will also need consideration on a case-by-case basis, as set out in Table 5. For residential development contributions will be on a per unit basis, and this may not necessarily be directly transferable to other situations such as visitor attractions, food outlets or tourist development. Nonetheless it should be possible for such applications to be mitigated through the strategic approach, on a bespoke basis. Such cases will require more detailed consideration, checks with Natural England and the mitigation checked through appropriate assessment.

Table 5: Relevant types of development

Use Type/Class	Likely Significant Effect	Mitigation requirements
Hotel (C1) Including boarding houses and guest houses	Possibly, case-by-case decision depending on potential to rule out tourists visiting the coast	Per unit contribution if necessary, 1 room = 1 residential unit unless evidence otherwise
Residential Institutions (C2/C2A) Accommodation and care to people in need of care including nursing homes, hospitals and secure institutions	Possibly, case-by-case decision and depends on the type of scheme and level of mobility of residents	Per unit contribution if necessary, 1 room = 1 residential unit
Residential Institutions (C2/C2A) School, college or training centre	Yes	1 room = 1 residential unit
Dwelling houses (C3) Any net increase	Yes	Per dwelling contribution
Dwelling houses (C3) Extension or 'Granny 'Annexe	Possibly, case-by-case decision and depends on whether functions as a separate unit	Per dwelling contribution if necessary
Dwelling houses (C3) Replacement dwelling	No	
Retirement dwellings (C3)	Yes	Per dwelling contribution
Houses in Multiple Occupation <6 residents	Yes	Per dwelling contribution
Houses in Multiple Occupation (C4/Sui Generis over 6 residents)	Yes	Per dwelling contribution for every extra room >6 residents
Holiday Dwellings (Sui Generis)	Possibly, case-by-case decision depending on potential to rule out tourist use of European sites	Per unit contribution if necessary and adjusted accordingly as evidence allows
Gypsy and Traveller Pitches (Sui Generis) Net new pitches that are either temporary or permanent	Yes	Per dwelling contribution
University managed student accommodation	Yes	Each self-contained cluster flat or studio = 1 unit
Café, food outlet or visitor attraction	Possibly, case-by-case decision based on application, location and links to coast	Contribution decided on a case-by-case basis as relevant

Costs per dwelling

Cost estimates

4.6 Costs for the package of measures included in this action plan are set out in Appendix 1. These are approximate costs, largely based on the figures provided directly through the questionnaire process or drawing on similar measures in other strategic mitigation schemes.

4.7 Mitigation needs to be secured for the lifetime of the impact, and therefore some elements may need to be required in-perpetuity. While some measures in this strategy are short-term or one-off measures, others need to run for many years, often extending well outside the Plan period. It will therefore be necessary to set aside costs for the long-term funding of mitigation and Appendix 1 gives an indication of which measures are likely to require in-perpetuity funding. These will need to be subject to regular review, as for example tern fencing and warden costs may change over time as a result of changes to the coastline and where the birds are nesting.

4.8 For some measures, it is likely that the whole cost of the project does not need to be met through developer contributions. For example, Little Tern fencing and wardening at the East Coast locations has been undertaken by the RSPB for many years, with funding to date coming in part from Great Yarmouth Borough Council (through developer contributions), alongside funding from other sources including the RSPB and Natural Engand. In this case it seems sensible and proportionate that the measures are part funded as mitigation, given the long-running nature of the project and other funding sources available (with no cause for concern that they might be withdrawn). However, this is contrary to some other strategic mitigation schemes (for example tern protection by the RSPB at Chesil Beach on the south coast is funded entirely by Dorset Council as mitigation for housing growth), and some caution is required. We have calculated costs of some projects such as the East Coast tern protection on the basis that not all costs will be through developer contributions, and a percentage contribution is given for each measure in Appendix 1. These percentages should be subject to review and recognition that the availability of other funding sources may change over time. Given the importance of some of these protection measures, were other funding sources not to be available they would need to shift to being 100% funded through the RAMS.

4.9 We have also allocated a percentage contribution to some measures whereby the project potentially has only some mitigation benefit, but where the project is perhaps driven by other priorities or needs. For example, new or upgraded toilet facilities. These may have a mitigation benefit (in the case of toilets by drawing visitors to more robust locations where engagement, infrastructure and access management measures are focussed and consolidated), but these will need to be clearly justified and agreed prior to funding being awarded. Furthermore, it is recognised that some of the projects in the Brecks area will be relevant to West Suffolk. Within the broad zone of influence for the Brecks it is estimated that around 70% of the future housing growth will be in Norfolk and 30% in West Suffolk, and as such a 70% contribution is applied to measures that would be applicable across both authorities.

4.10 Costs are further summarised in Appendix 2 to give a breakdown by site, by type of measure and by priority. Costs are summarised by European site in Figure 1, which gives the total cost of the measures allocated to each site (and with a separate bar for those measures that apply across all sites). It can be seen that the costs are highest for the East Coast, followed by the North Norfolk Coast and the Wash.

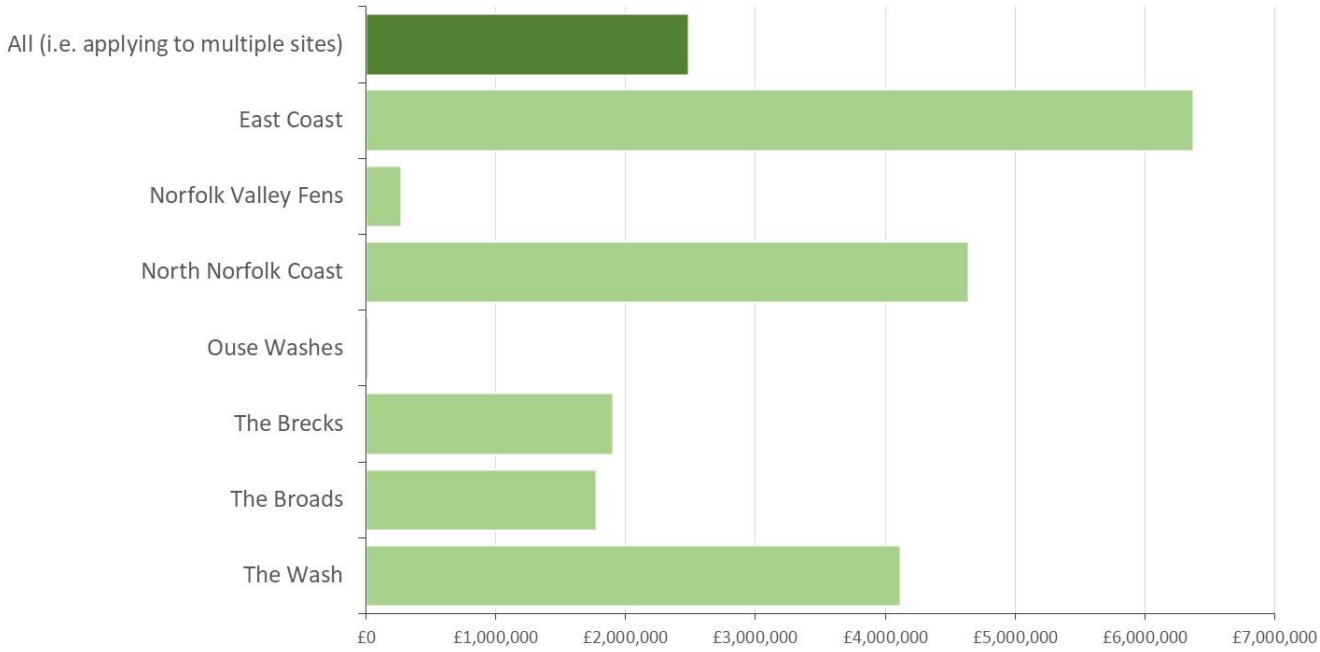

Figure 1: Summary of cost breakdown by site, i.e. total costs for the mitigation for each

4.11 Some reserve projects are also listed in Appendix 3. These may provide opportunities for mitigation should other projects fail to come forward or mitigation is required in specific locations to tie in with the housing growth. The projects listed are however mostly large and significant infrastructure projects and some may have commercial benefit for the organisations involved. As such they need further consideration and checks and part funding may be more appropriate according to the amount mitigation benefit incorporated in the project design. These projects have not been used to calculate the cost of mitigation or the per dwelling cost set out below.

Per dwelling cost

4.12 The overall cost of the mitigation measures in Appendix 1 is £22 million (rounded up to the nearest million to provide contingency). With housing growth over the 25-year period covered by this strategy estimated to be around 74,950 dwellings, the per dwelling cost for package of mitigation measures is £293.53. This would need to be reduced to take account any contributions already collected and not so

far spent (i.e. in line with existing GIRAMS) and then updated annually in line with inflation.

4.13 This sets a level of developer contribution which may need further adjustment to reflect administration fees etc. The tariff is higher than the one set in the original GIRAMS and this is due to a more refined and detailed list of projects and ensuring adequate budget to cover mitigation in-perpetuity. It should be subject to regular review and adjusted as relevant in accordance with any further changes in anticipated housing growth or delivery costs.

4.14 This per dwelling tariff is relatively low compared to many other strategic mitigation schemes. Examples of the per dwelling costs for other mitigation schemes (typically limited to just one or a small number of European sites), include:

- £443 (1 bedroom dwellings) to £1150 (5 bedroom properties)[5] for the Solent;
- £914 per dwelling for mitigation relating to the Chilterns Beechwoods SAC (Dacorum Borough Council[6]);
- £277 (flats) and £406 (houses) for the Dorset Heaths[7] (costs as per the SPD produced in 2020).

Review and governance

4.15 It will be important, looking forward, that there is flexibility and regular review as to how money is spent and what is needed on the ground. A number of factors (such as Covid, extreme weather conditions, the cost of living crisis) have had an impact on visitor behaviour, visitor numbers, access infrastructure etc. in recent years. Changes in housing delivery will effect how much mitigation revenue is collected. There is uncertainty as to how priorities might need to shift in the future, for example as a result of coastal change, and such uncertainty can only be addressed through good monitoring, adaptive mitigation and regular review.

4.16 The plan includes costs for a delivery manager. Their role will be critical to foster collective working, support delivery bodies in delivering mitigation and report back to planning authorities. The delivery manager will need to ensure mitigation

[5] See https://birdaware.org/solent/about-us/our-strategy/developer-contributions/

[6] https://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/new-single-local-plan/chilterns-beechwoods-special-area-of-conservation/chilterns-beechwoods-special-area-of-conservation-(sac)---mitigation-strategy

[7] https://www.dorsetcouncil.gov.uk/documents/35024/309543/Dorset+Heathlands+2020-2025+SPD+Adopted.pdf/bda03d74-cbc9-57c9-b3be-6253ba2825fb

delivery reflects the locations where it is required and is spatially relevant to housing growth. This will require recording housing growth within each European site, potentially mapping that growth and ensuring mitigation measures relate to where the housing growth comes forward. This may mean some projects need to shift in priority or change. The list of projects will need continued review.

4.17 It is also possible that additional opportunities may arise, for example as a result of changing land ownership. It may be that over time projects come forward at sites such as Breydon Water or Dersingham and Roydon (which currently have no specific projects) and as such would benefit inclusion in the mitigation delivery (depending on where housing growth takes place). It is important therefore that the overall management is flexible and responsive enough to enable developer contributions to be shifted to different components of the strategy easily. Annual reviews of budgets and the ability to adjust finances as appropriate (with rapid approval) will be key.

4.18 It will therefore be necessary to have the appropriate governance structure and support in place so that the delivery manager can allocate funds and so that developer contributions can be efficiently allocated to projects. Terms of reference for the governance and oversight have been established by the local planning authorities and include a Board who will agree a programme of projects for delivery and oversee implementation of the agreed programme.

4.19 This Action Plan covers the period through until 2046. The Plan should be reviewed and updated on at least a 5-year basis (alongside annual reviews of budget and tariffs adjusted annually). These regular updates provide the confidence that mitigation is appropriate, meets the impacts associated with the level of housing growth and is targeted to the right locations.

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Appendix 1: Mitigation costs

This table lists the same measures as set out in Table 4 with estimated costs for each. Rolling costs are ones that may need to be applied across multiple years or spread over time (as opposed to one-off costs). Some measures are given rolling costs that span up to 80 years, reflecting in-perpetuity delivery. The total cost of each project is adjusted for some projects to give a strategy cost; this is based on the % adjustment figure which is applied where projects may have other funding sources, may not entirely be around mitigation delivery or where other local authorities (outside Norfolk) may contribute.

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
A1	County-wide dog project	£30,000	£20,725	10	£237,250	£237,250	Capital costs to cover website design, branding and equipment (such as gazebos). Running costs to pay for part time post with support costs, 0.5 fte equivalent post with costs extended to cover 10 years. £27,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and £5000 per annum support costs.	100	
A2	Gazetteer of dog walking sites	£15,000	£2,000	10	£35,000	£35,000	Estimated costs to set up and as dynamic, costs to update regularly	100	
A3	Visitor monitoring at relevant sites		£50,000	4	£200,000	£200,000	£40,000 per survey, with cost to be repeated 4x.	100	
A4	Online hub for reporting problem behaviour by light aircraft	£5,000	£1,000	10	£15,000	£15,000	Estimated cost to establish some kind of reporting system	100	
A5	County-wide car park review (capacity, charging, economy, coastal change, etc)	£30,000			£30,000	£30,000	estimated cost for commission of survey/review with delivery manager support	100	
A6	Norfolk focused events for stakeholders		£5,000	10	£50,000	£50,000	Indicative budget to allow hiring of venue, promotion and organisation	100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
A7	Site ambassador (volunteer) network and engagement training		£3,500	10	£35,000	£35,000	Small budget for meetings/events and training	100	
A8	AONB comms position (covering whole coast)		£41,450	2	£82,900	£82,900	£27,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and £5000 per annum support costs.	100	
A10	Delivery Manager		£59,000	25	£1,475,000	£1,475,000	£40,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and £5000 per annum support costs. Costed for 25 years to cover strategy period. Scope to extend longer by dropping post to part time role towards end of period	100	
A9	Fire consultancy support		£10,000	5	£50,000	£50,000	Rolling budget to allow specialist consultancy support (e.g. review of fire management plans) and potential for collaborative events/workshops/discussion.	100	
A11	Monitoring strategy	£25,000			£25,000	£25,000	estimated cost for consultancy commission to produce a strategy	100	
A12	Project specific monitoring		£25,000	10	£250,000	£250,000	Estimated cost to allow targeted monitoring. Monitoring approaches should be straightforward and simple, and therefore not require large budget	100	
EC1	East Norfolk beach-nesting birds: Team Leader		£47,000	80	£3,760,000	£1,504,000	The cost includes: base salary of £28,300 per annum (based on 230 working days), NI, c.£4000 for support costs (e.g. office, IT equipment etc), 10% contingency and 6% pension	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
EC2	East Norfolk beach-nesting birds: Community & Volunteer Officer		£43,100	80	£3,448,000	£1,379,200	The cost include: base salary of c.£25,700 per annum (based on 230 working days), NI, c.£4000 for support costs (e.g. office, IT equipment etc), 10% contingency and 7% pension	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures
EC3	East Norfolk beach-nesting birds: Senior Beach Warden		£17,687	80	£1,414,960	£565,984	The cost include: base salary of £12,000 per annum (based on 115 working days), NI, c.£1,500 for support costs (e.g. office, IT equipment etc), 10% contingency and 7% pension	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures
EC4	East Norfolk beach-nesting birds: Beach Wardens		£83,000	80	£6,640,000	£2,656,000	The cost include: base salary for 6 wardens of £21,200 per annum (based on 90 working days), NI, c.£1200 for support costs (e.g. office, IT equipment etc), 10% contingency and 7% pension. This equates to c.£13,800 per warden	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures
EC5	East Norfolk beach-nesting birds: Fencing		£5,000	80	£400,000	£160,000	To replace the fence every 2-3 years would require: c.£3000 for poultry netting, rope, wooden posts and electrics, and c.£1500 for the electric wire per fence. The poultry netting may last for a longer period of time, but this will be dependent on vandalism and other damage that ,may occur through the season (e.g. tidal wash out).	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
EC6	East Norfolk beach-nesting birds: Signage	£3,500	£750	80	£63,500	£25,400	The cost is for the upfront investment in 2 A-frames (e.g. £150 each), 2 A1 interpretation panels (e.g. £500 each) and smaller information and warning signs per colony for Eccles and Winterton. The initial cost also covers signage for North Denes beach to provide interpretation of the importance of the site and to enable protection measures to be implemented as appropriate at the start of the season.	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures
EC7	East Norfolk beach-nesting birds: welfare facilities for staff and volunteers		£2,000	80	£160,000	£64,000	This covers £1000 to hire a portacabin at Winterton between May to mid-August. There is £1000 to hire the portaloos between May to mid-August.	40	Percentage applied to reflect partial contribution from LPAs given range of threats and pressures
EC8	Vegetation monitoring at Winterton Dunes NNR		£12,000	2	£24,000	£24,000	Assumes surveys at 5 year intervals. Estimated cost of £12,000 per survey should provide for reasonable coverage	100	
NVF1	Buxton Heath car park upgrade and signage/waymarking	£50,000			£50,000	£50,000	estimated budget for works	100	
NVF2	Improvements to car park, path resurfacing and installation of sculpture trail at Holt Country Park	£120,000			£120,000	£120,000	Notional budget to cover works and commissioning of appropriate sculptures	100	
NVF3	Provision of dog bins	£1,800	£1,200	80	£97,800	£97,800	£600 per bin initial cost for timber-fronted dual waste bin. £400 per bin per year to empty. 3 bins. Replacement on 10 year basis.	100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
NNC2	Seasonal dog restrictions	£200,000	£10,000	80	£1,000,000	£1,000,000	Costs as suggested by the estate to cover wages, deprecation and sundries	100	
NNC3	QR codes for information panels on public footpaths	£8,000	£2,000	5	£18,000	£18,000	Set-up fee for equipment, plus time to instal each QR code point. The rolling cost would be a small payment to each person updating the info - approx. £100/annum over 20 QR code sites	100	
NNC5	Interpretation panels at Branodunum Roman Fort	£20,000	£500	6	£23,000	£23,000	Previous interpretation projects include design	100	
NNC6	Signage audit and installation of interactive interpretation points		£20,000	4	£80,000	£80,000	Based on previous experience of similar projects	100	
NNC7	Path surface improvements & bridge provision on Stiffkey Saltmarsh	£400,000	£2,000	10	£420,000	£420,000	Indicative quotes & past path projects	100	
NNC8	Accessible path at Morston Quay	£300,000	£2,000	10	£320,000	£160,000	Estimate based on previous path projects	50	% contribution applied as mitigation benefits may vary according to design and NT have indicated other funding may be available in part
NNC9	Interpretation materials for visitors at Morston Quay	£55,000	£500	6	£58,000	£58,000	Previous interpretation projects include design	100	
NNC10	Review of dog restrictions around Blakeney Harbour and Freshes and implement findings	£10,000	£2,000	10	£30,000	£30,000	Based on estimate of initial report, followed by rolling programme of signage/communications but rolling costs would be dependent on the measures recommended	100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
NNC11	Seasonal wardening around Blakeney, Blakeney Point, Stiffkey, and Brancaster		£35,000	60	£2,100,000	£2,100,000	Based on cost of 2 rangers working seasonally (6 months a year) as provided by NT. Rolling cost applied at 60 years on assumption that ranger coverage would drop over time from 2 posts to 1. So costs potentially cover 1 post for 80 years and 1 post for 40.	100	
NNC13	Establish "Gateway to Blakeney Point"	£30,000	£20,000	10	£230,000	£230,000	Cost based on rough estimate of hut and signage, plus the cost of salaries for 2 Assistant Rangers working for 5 months (March- July) each year.	100	
NNC14	Develop visitor offer at Friary Hills (SANG)	£5,000	£1,000	20	£25,000	£25,000	Very rough estimate of infrastructure improvement and then annual maintenance	100	
NNC15	Wardening and signage on Stiffkey Saltmarsh	£2,000	£20,000	10	£202,000	£202,000	Cost based on some basic signage costs, plus the cost of employing two seasonal assistant rangers (March - July inclusive), including clothing and kit.	100	
NNC16	Signage and zoning of access within Young's Land (SANG)		£200	10	£2,000	£2,000	Based on ranger time to do the grass cutting, plus maintenance of equipment.	100	
NNC18	Blakeney Point - water presence (additional capacity)	£20,000	£20,000	10	£220,000	£220,000	Cost based on provision of boat if required, plus the cost of employing a seasonal member of staff (March - July inclusive), including clothing and kit.	100	
NNC20	Further promotion of the Coastal Code		£15,000	5	£75,000	£75,000	Assumes part-time role over 10 year period	100	
OW1	Monitoring surveys for detection/spread of invasive species and watching brief on recreation use		£2,000	10	£20,000	£20,000		100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
BRE1	Enhancements to Rights of Way network	£50,000			£50,000	£35,000	notional budget and aim should be for small pot to fund works identified in review	70	overlap with W Suffolk
BRE2	Promotion of footpaths and walking routes	£20,000			£20,000	£14,000		70	overlap with W Suffolk
BRE3	Review of footpaths	£10,000			£10,000	£7,000	budget to allow report and site visits	70	overlap with W Suffolk
BRE4	Strengthening of CRoW access restrictions		£2,000	10	£20,000	£14,000	flexible pot to fund additional signage as required	70	overlap with W Suffolk
BRE5	New dog bin installation at Cavenham Heath	£1,200	£920	30	£28,800	£20,160	£600 per bin initial cost for timber-fronted dual waste bin. £400 per bin per year to empty. 2 bins. Replacement on 10 year basis.	70	overlap with W Suffolk
BRE6	Rabbit focus group		£2,500	10	£25,000	£17,500		70	overlap with W Suffolk
BRE7	Signage and interpretation across the Thetford Forest Estate SSSI/SPA	£90,000	£5,000	5	£115,000	£80,500	General maintenance/upgrades cost in Rolling Cost phased over 5 years as an approximation guideline	70	overlap with W Suffolk
BRE8	Rebranding & repurposing of a sensitive site (Santon Downham)	£30,000	£2,000	5	£40,000	£28,000	Initial capital spend to rebrand and manage the site effectively with the change in use for visitor experience, away form water and picnic to historic interest and walking Rolling cost is maintenance of signage	70	overlap with W Suffolk
BRE9	Increased ranger coverage within Thetford Forest/surrounding area		£41,450	50	£2,072,500	£1,450,750	1 fte equivalent post with costs extended to cover 50 years. £27,000 annual salary, plus 35% (to cover NI, superannuation, etc.) and £5000 per annum support costs.	70	overlap with W Suffolk
BRE12	Interpretation panels at Cavenham Heath	£10,000	£10,000	3	£40,000	£28,000	£2,500 per board for production of timber frame and graphic panel, delivery and installation. Estimate of 4 boards. Costs allowed for 3 replacements	70	overlap with W Suffolk

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
BRE13	Fenced dog exercise area at Lynford Arboretum extension	£30,000	£4,000	5	£50,000	£50,000	Initial creation of fenced facility (two sides of fencing already exist here) plus ongoing maintenance estimations	100	
BRE14	Installation of hard (barrier) infrastructure at selected access points	£200,000	£5,000	5	£225,000	£157,500	Initial infrastructure creation plus maintenance	70	overlap with W Suffolk
BRO3	Replacement of Visitor Observation Hide at Strumpshaw Fen RSPB Reserve	£75,000	£0		£75,000	£37,500	Based on investigation undertaken for previous grant bid. Cost of foundation is significant based on the depth of peat substrate, and limited access for heavier machinery, leading to the need for a specialist contractor	50	suggested contribution as replacement of existing facility
BRO5	Resurfacing of overflow car park at Strumpshaw Fen RSPB Reserve	£50,000			£50,000	£25,000	Based on previous quotes for specific design and materials to cover the required surface area.	50	suggested contribution as upgrade to existing facility
BRO6	Upgrade of visitor trails at Strumpshaw Fen RSPB Reserve	£100,000			£100,000	£50,000	Costs based on a calculation per square metre extrapolated for up to 1.5km	50	suggested contribution as upgrade to existing facility
BRO7	Weavers' Way interpretation panels	£15,000	£1,500	80	£135,000	£135,000	Based upon previous experience/similar projects. We might look to upgrade or replace every 10 years at a similar cost of £15000	100	
BRO8	Expansion of the electric boat charging network	£50,000			£50,000	£50,000	Indicative cost suggested by Broads Authority	100	
BRO9	Improve access within Hoveton Riverside Park	£40,000			£40,000	£40,000	Broads Authority to cover annual rolling costs.	100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
BRO10	Broads education and outreach project within local schools and youth organisations	£0	£37,000	10	£370,000	£370,000	Staff costs 0.5 FTE post; (based on current salaries) £1,559.18 /month (£18,710.16 per annum) Additional costs; - Transport: to get young people out on site £5,000 - External Provider costs (Youth workers/ Specialists/Arts workers etc) £5,000 - Resources and materials: £2,000 - Training for staff, school staff, youth workers: £3,000	100	
BRO11	Establishment of Acle Bridge Hub	£100,000			£100,000	£100,000	Broads Authority to cover annual rolling costs	100	
BRO12	Face-to-face engagement with boat owners/operators re: best practice		£15,000	10	£150,000	£150,000	Assumes part-time role over 10 years	100	
BRO13	Provision of environmental info packs on hire boats	£15,000	£500	10	£20,000	£20,000		100	
BRO14	Wider roll-out of decontamination facilities for boat users/hirers	£20,000			£20,000	£20,000		100	
BRO15	Broads Wildlife Engagement Ranger position		£78,000	10	£780,000	£780,000	Staff costs 1 FTE post; (based on current salaries) £38,000 per annum Additional annual costs Total £20,000 - External Provider costs (dog trainer etc) £5,000 - Resources and materials: £5,000 - Training for staff and boat yards: £10,000	100	
W2	Limits of Acceptable Change Study: Phase 2		£50,000	1	£50,000	£50,000	Based on quotation received.	100	

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
W3	Limits of Acceptable Change Study: Phase 3		£60,000	5	£300,000	£300,000	Staff time for support and admin, expert costs for monitoring, travel costs. Could also include a small grant fund where grants under £5k are awarded to support management changes. After 5 years, minimal staff costs / expert costs will be required as the project becomes self sustaining. In reality, the firth years funds may be spread over the final 5 years.	100	
W4	Hunstanton footpath diversion	£250,000	£20,000	3	£310,000	£77,500	Indicative costs when enquiries made during 2023.	25	suggested contribution as requires careful scutiny to ensure mitigation benefit and benefits relative to cost may be small
W5	Plovers in Peril: Project Officer		£43,100	80	£3,448,000	£2,586,000	The cost includes: base salary of £25,700 per annum (based on 230 working days), NI, c.£3500 for support costs (e.g. office, IT equipment etc), 10% contingency and 7% pension, with a total cost of c.£43,100.	75	75% contribution to reflect project focus not entirely SPA linked and project not solely around disturbance and visitor awareness
W6	Plovers in Peril: Assistant Project Officer		£15,300	80	£1,224,000	£918,000	The cost include: base salary of £23,500 per annum (based on 115 working days), NI, c.£2100 for support costs (e.g. office, IT equipment etc), 10% contingency and 7% pension, with a total cost of c.£15,300.	75	75% contribution to reflect project focus not entirely SPA linked and project not solely around disturbance and visitor awareness

Code	Mitigation measure	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Strategy Cost	Notes on how cost calculated	% contrib-ution	Reason for % contribution adjustment
W7	East Norfolk beach-nesting birds: Fencing		£500	80	£40,000	£30,000	Funding to replace wooden posts and rope that has deteriorated over the course of a season.	75	75% contribution to reflect project focus not entirely SPA linked and project not solely around disturbance and visitor awareness
W8	Plovers in Peril: Signage	£2,000	£500	80	£42,000	£31,500	The costs are derived from: 2 A-frames, 2 interpretation panels, and smaller information signs.	75	75% contribution to reflect project focus not entirely SPA linked and project not solely around disturbance and visitor awareness
W9	Plovers in Peril: Welfare facilities – portaloo		£500	80	£40,000	£30,000	Cost is for portaloo hire from April till September annually.	75	75% contribution to reflect project focus not entirely SPA linked and project not solely around disturbance and visitor awareness
W10	Path resurfacing and access improvements	£15,000			£15,000	£15,000	Based on previous experience and quotations for projects in a similar area (including distance covered).	100	
W11	Peddars Way Access Improvements	£30,000	£10,000	5	£80,000	£80,000	Based on experience of other projects however this cost can be scaled up or down accordingly	100	

Appendix 2: Breakdown of mitigation costs

The tables below break down the estimated cost of mitigation by site and by type of measure and by potential implementation.

Type of measure	All	East Coast	Norfolk Valley Fens	North Norfolk Coast	Ouse Washes	The Brecks	The Broads	The Wash	Total
A Small/temporary infrastructure		£185,400	£97,800	£358,000		£357,160	£245,000	£156,500	£1,399,860
B Significant infrastructure project with long term benefit			£170,000	£580,000		£28,000	£212,500	£77,500	£1,068,000
C Direct on-site engagement		£6,169,184		£3,550,000		£1,478,750	£950,000	£3,534,000	£15,681,934
D SANG type project, deflecting visitors away from European site (but linked to European site rather than totally discrete)				£50,000					£50,000
E Off-site engagement	£355,150			£75,000		£14,000	£370,000		£814,150
F Monitoring	£490,000	£24,000			£20,000				£534,000
G Review or investigative projects to determine further details around mitigation delivery	£30,000			£30,000		£7,000		£350,000	£417,000
H Support for organisations delivering mitigation and collaboration	£1,610,000					£17,500			£1,627,500
Total	**£2,485,150**	**£6,378,584**	**£267,800**	**£4,643,000**	**£20,000**	**£1,902,410**	**£1,777,500**	**£4,118,000**	**£21,592,444**

Implementation	All	East Coast	Norfolk Valley Fens	North Norfolk Coast	Ouse Washes	The Brecks	The Broads	The Wash	Total
Immediate (quick wins and easy to implement)	£2,072,250	£6,378,584	£97,800	£3,613,000		£1,667,910	£1,135,000	£3,740,500	£18,705,044
Medium term (projects that may require further build up of funds or longer lead in time)	£412,900		£170,000	£1,030,000	£20,000	£234,500	£542,500	£377,500	£2,787,400
Longer term (projects requiring long lead in time, preparation or where there are further checks or steps needed)							£100,000		£100,000
Total	**£2,485,150**	**£6,378,584**	**£267,800**	**£4,643,000**	**£20,000**	**£1,902,410**	**£1,777,500**	**£4,118,000**	**£21,592,444**

Appendix 3: Reserve Project Ideas

The following projects have not been included in the calculations of the overall mitigation cost or per dwelling tariff. They are projects suggested by relevant stakeholders/delivery bodies and they potentially do have mitigation benefit. Some comprise large, expensive infrastructure projects and as such they may be more long-term projects or opportunities. Some have clear commercial benefit for the delivery body and as such should be carefully considered and the mitigation benefit checked before any mitigation money is awarded. The projects are included in the report as they may provide opportunities for part funding or they make take on relevance if other projects fail to come forward or there are spatial gaps in mitigation delivery in relation to where housing growth occurs.

Code	Site	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Notes on how cost calculated
NNC4	North Norfolk Coast	New toilet block at Morston Quay	Provide (additional) permanent toilets to meet visitor demand for tourism.	National Trust	Meet increased demands from others publicising area & give space to educate significance of area.	New build anticipated for 2024	£800,000			£800,000	Cost estimate provided by the NT and based on quotes
BRE11	The Brecks	Lynford Water redevelopment project	Redevelopment of Lynford Water. Key elements of the investment/ development to be delivered in scope comprise : redesign of car park access, toilets, catering facility infrastructure close to beach (to be operated by a 3rd party business, with a seasonal	Forestry England	To effectively manage and reduce impacts of unmanaged recreational use and anti-social behaviours. The increase in visitors, dog walkers and interest in water sports (currently unmanaged so an 'at risk' activity) has a direct bearing on increased fires, loss of habitat quality and increased disturbance. H & S is also a concern here due to little presence of staff. The site is a popular bird watching and walking		£2,000,000	£60,000	10	£2,600,000	Initial one-off development works cost + rolling staff and maintenance costs

Code	Site	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Notes on how cost calculated
			option), a water recreational offer operated by a 3rd party business (kayaks, SUPs, quiet water recreation offer), and potential for appropriate sized events to be held on site (e.g. outdoor cinema, theatre, educational offers (with potential for an overnight stay offer provided by a 3rd party business in consideration).		location with zero facilities. The plan will balance impacts with nature in a managed way, promoting education of visitors and understanding of habitats while providing a high class visitor experience that generates income and tells the Forestry England story.						
BRO4	The Broads	Visitor toilets upgrade at Strumpshaw Fen RSPB Reserve	Upgrade/refit of existing visitor toilets to make them DDA compliant.	RSPB	Strumpshaw Fen is the nearest wildlife attraction to Norwich and receives c30,000 visitors/ann. These visitors are existing wildlife watchers and those new to nature and the local area. The visitor toilets provide a primary function but are dated and in desperate need of upgrading and reformatting to make them DDA compliant.	October through to March to minimise disruption during the peak visiting season.	£50,000	£2,500	10	£75,000	Based on recent calculations for grant aided project. Rolling cost covers annual contractor cleaning

Code	Site	Mitigation measure	Description	Parties involved in delivery	Justification	Timing considerations	One-off/ Capital cost	Rolling cost	Multiplier for rolling cost	Total cost	Notes on how cost calculated
W1	The Wash	Installation of public toilets at Snettisham RSPB Reserve	Installation of waterless WooWoo public toilet at RSPB Snettisham, within the Wash Ramsar/SPA/SAC/SSSI.	RSPB	There are currently no facilities on or around the reserve at Snettisham, with the nearest public toilet at Heacham South Beach, 3 miles away. The aim is to help visitors access the reserve, in a sustainable way. Provision of toilets will prevent people from looking for suitable areas to go outdoors, which has the potential to damage habitat and disturb birds around the reserve.	Given that the location is within the designated sites, planning approval may take more than 1 year but this is not anticipated.	£18,000			£18,000	These costs have been obtained from the manufacturer. Depending on the model selected, there may be a small annual cost of around £800 for the toilet to be pumped.
BW2	Breydon Water	Project to assess frequency/ impact of waterskiing in Breydon Water SPA	Project will gather evidence which will inform potential future regulation of waterskiing within the SPA and inform design of mitigation.	Broads Authority	Will reduce disturbance to the SPA through greater clarity of issues and how best to address			£30,000	5	£150,000	estimate of cost for necessary monitoring work and basic study plus budget for follow up interventions