FOOTPRINT ECOLOGY

Phase 2 of the Limits of Acceptable Change Project

Durwyn Liley, Phil Saunders & Zoe Caals

FOOTPRINT ECOLOGY, FOREST OFFICE, BERE ROAD,
WAREHAM, DORSET BH20 7PA
WWW.FOOTPRINT-ECOLOGY.CO.UK
01929 552444

Footprint Ecology is a small, employee-owned, ecological consultancy with an ethical focus. Founded in 2004 and based in Purbeck, Dorset, we are catalysts for change, collaborating with organisations that share our commitment to sustainability and social responsibility. We create practical solutions to complex ecological challenges across a diverse portfolio, including nature conservation, outdoor recreation, and associated strategic planning.

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Summary

In 2022, the Norfolk Coast Partnership commissioned a report by Footprint Ecology that applied the Limits of Acceptable Change (LAC) framework to inform recreation provision and address the nature conservation issues associated with recreational access along the North Norfolk Coast and around The Wash into Lincolnshire.

The application of the LAC framework is intended to help achieve a balance between nature conservation and access. Using 'indicators' or 'standards' as its basis, the framework sets out different types of zone (referred to as 'opportunity classes' within LAC guidance) that describe visitor experience, management etc. The 2022 work established 6 different types of zones, reflecting a range of use from busy beaches with lots of infrastructure, parking and facilities to areas managed for wildlife only with no recreation provision at all. Within each type of zone, the standards – that relate to recreation impacts - are different. It is then possible, through subsequent monitoring, to identify when standards are not being met within a given zone, allowing management to be targeted appropriately. This means that management is adaptive and that there is clarity as to what the key concerns are, how they can be tracked, and when change is necessary.

This report builds on that previous work and:

- Presents additional visitor data (for the late winter period and for the Norfolk coast only) to provide further information on the standards, and inform any changes to them.
- Summarises further desk-based work, primarily undertaken using GIS, to look for opportunities to widen the area where the LAC has been applied in Norfolk (where visitor use is highest). This involved looking for areas away from the coast that might work to draw visitors. These are likely to be Local Greenspace zones, but could include Town and Village or Destination Sites.
- Summarises workshops held with key stakeholders and partners to review the previous report, checking for any refinements needed to the zones, standards, or management options.
- Provides a focused case study of the coastal area within Holme Dunes National Nature Reserve (NNR), an area managed by the Norfolk Wildlife Trust (NWT) , with a particular emphasis on visitors with dogs.

The key outcome of this new work, in terms of the overall approach, is that there is potentially merit in simplifying the originally identified standards, as they clearly require considerable data collection and may prove relatively difficult to apply. They could ultimately be simplified to a simple metric based upon vehicle numbers, potentially adjusted for individual car parks and parking locations, to give a specific range of use for a given parking area at a given time of year.

With respect to the Holme Dunes NNR case study, the application of the LAC approach shows that interventions within the NNR are warranted, as some standards are currently exceeded.

Given the endorsement of the LAC approach on a coast-wide basis, this should provide the confidence necessary to implement change. A long-term approach to recreation management could involve downplaying the Holme Dunes NNR area, reducing parking capacity, and reviewing access infrastructure in the area zoned as Wild Places. There is simultaneous scope to promote the Titchwell Marsh RSPB Reserve area (as a destination for those tourists travelling to see wildlife) and Hunstanton (as a destination for those travelling to the coast for the beaches and places to walk the dog).

Moving forwards, it should be obvious to any visitors heading eastwards along the beach/open coast, from the Hunstanton area/Old Hunstanton, that they are moving from a Destination Site (with a focus on tourism) to a wilder, more remote area where access is limited due to topography and terrain. The areas mapped as Wild Places need to have low levels of access and not be promoted for activities such as dog walking. In parallel, there would be benefit in creating more space for recreation, potentially inland or away from the coast, that could provide for local residents and deflect access from the more sensitive locations. Dog walkers will then have plenty of options as to where they can walk their pet, where dogs are able to run free without the risk of causing disturbance, alongside clear guidance and restrictions in those areas that are important for nature conservation. Visitors to the NNR will be made aware that they are in an area that is not a tourist beach and where nature conservation is the focus. The NWT cannot achieve these changes in isolation and adjoining landowners, organisations, and local businesses will need to work with them towards a shared vision.

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The vehicle counts and vantage point counts were carried out by Juliette Banwell, James Lowen and Will Soar, with data entered by Manuela Naprta (Footprint Ecology).

1. Introduction

1.1 This report builds on previous work by Footprint Ecology for the Norfolk Coast Partnership, using the Limits of Acceptable Change (LAC) framework to inform recreation provision and address the nature conservation issues associated with recreational access along the North Norfolk Coast. This section provides background and context to the work.

Background to the area and Limits of Acceptable Change

1.2 The Norfolk Coast Protected Landscape is of exceptional importance for nature conservation, encompassing a suite of coastal habitats and hosting a range of rare and notable species. The area is also a popular destination for recreation and attracts high numbers of visitors throughout the year.

1.3 Recreation use can have an impact on the nature conservation interest, for example through bird disturbance or via trampling of vegetated shingle. With increasing recreational demand and recreation use changing (e.g. different activities), there is a growing need to ensure effective measures are put in place where necessary to manage and/or mitigate negative impacts caused by visitors.

1.4 The Limits of Acceptable Change (LAC) process (Figure 1) recognises that access to the coast brings a wide range of benefits but can also damage the nature conservation interest. The LAC provides a framework to achieve the balance between nature conservation and access. Using 'indicators' or 'standards' as its basis, the LAC framework sets out different types of zone (referred to as 'opportunity classes' within LAC guidance) that describe visitor experience, management etc. Within each type of zone, the standards – that relate to recreation impacts - are different. It is then possible, through subsequent monitoring, to identify when standards are not being met within a given zone, allowing management to be targeted appropriately. This means that management is adaptive and that there is clarity as to what the key concerns are, how they can be tracked, and when change is necessary.

1.5 Deploying the framework at a landscape scale provides an agreed and consistent approach and means that stakeholders have a shared vision of how recreation issues are addressed and when interventions might be necessary.

Figure 1: The LAC process

LAC work in 2021

1.6 During 2021, Footprint Ecology were commissioned[1] to apply the LAC framework around the North Norfolk and Wash coastline, westwards from Sheringham to Gibraltar Point, encompassing all of the important nature conservation areas contained within. Zones were identified and agreed with a group of stakeholders from a range of organisations and standards were then identified for these zones. Full details can be found in Liley *et al.*(2022).

1.7 The previous work identified key themes that were relevant across much of the study area coastline. These comprised: disturbance to beach nesting

[1] The commission was for The Wash & North Norfolk Marine Partnership (WNNMP), Norfolk Coast Partnership (NCP), and PROWAD LINK.

birds, disturbance to non-breeding waterbirds, disturbance to seals, and trampling damage to coastal habitats (foredune, vegetated shingle, and saltmarsh, in particular).

1.8 Overall, six different zones were identified:

- **Town and Village**: with hard sea defences, sea fronts and a range of infrastructure, comprising urban, developed, and busy destinations.
- **Local Greenspace**: local countryside providing for a range of local access, encompassing public rights of way and the wider countryside through to sites such as Country Parks.
- **Destination Sites**: attractive sites with expansive open beaches and other habitats; well-known with a wide draw and appeal, drawing tourists as well as local people.
- **Wildlife Tourism**: nature reserves where management and infrastructure are focussed around people and wildlife. They exhibit high visitor volumes, but are focussed around nature viewing, with hides and other viewing facilities, trails, etc.
- **Wild Places**: remote areas incorporating expansive open beaches, saltmarsh and other coastal habitats, with low visitor numbers and wilder areas with few people.
- **Wildlife Only**: large areas with sensitive wildlife or habitats present where access to the general public is restricted. Access is limited to monitoring, navigation and permitted activities.

1.9 The measurable standards that were applied to each of the six zones included access metrics such as the number of people on intertidal habitats, the number of dogs, and the number of boats present, in addition to metrics reflecting biological indicators for the key themes. The latter included the distribution and numbers of birds or seals. The standards were, in part, drawn from visitor data collected during the work, comprising co-ordinated counts of people and vehicles around the coast.

Need for this report

1.10 This commission builds on the previous work and has the following aims:

- To gather additional visitor data (for winter along the Norfolk coast only) to provide further information on the standards, and inform any changes to them.
- To undertake further desk-based work, primarily using GIS, to look for opportunities to widen the area where the LAC has been applied in Norfolk (where visitor use is highest), i.e. looking for areas away from the coast that might work to draw visitors. These

are likely to be Local Greenspace zones, but could include Town and Village or Destination Sites.
- To meet with key stakeholders and partners to review the previous report, checking for any refinements needed to the zones, standards, or management options.
- To provide a focused case study of the coastal area within Holme Dunes NNR, with a particular emphasis on visitors with dogs.

Structure of the report

1.11 The report is structured in line with the above, and with discrete sections that cover:

- The additional 2025 visitor data (methods and results for visitor survey work involving counts of people and vehicles undertaken Jan – March 2025).
- Potential new areas to incorporate (results from GIS work to identify alternative sites).
- LAC workshop findings (summarising key points from a workshop with stakeholders held in March 2025).
- Holme case study (applying the LAC approach in detail to a specific area, and drawing on input from key local stakeholders to make specific recommendations and develop ideas for this area of the coast).
- Discussion and recommendations (drawing on results of previous sections) to describe any updates required to the original report and implications for the implementation of the LAC more widely.

2. 2025 visitor data (people and vehicle counts)

2.1 Additional visitor surveys involving counts of people and parked vehicles were undertaken around the Norfolk coast in early 2025. These counts largely replicated previous surveys undertaken in 2022.

Methods

2.2 On 7 occasions between January and March 2025, surveyors visited 132 parking locations along the Norfolk coast (Map 1). The parking locations were largely a subset of those previously identified and surveyed in 2022 (Liley *et al.*, 2022). The 2022 surveys included The Wash round to Gibraltar Point and covered the spring (end of March to May). The 2025 surveys therefore only covered part of that area (the Norfolk section), and a different temporal spread to the 2022 surveys, and (following a review of the previous count locations) some updates and revisions were made to include new locations. As in 2022, the relevant counts were split into 3 sections (Table 1) and driven by 3 surveyors who all set off at the same time.

Table 1: Details of the routes and parking locations used in the vehicle counts.

ID	Route	Length (km)	Number of parking locations	Number of vantage points	Estimated total capacity
A	Weybourne to Burnham Overy Staithe	56	61	7	4,270
B	Burnham Norton to Hunstanton	35	48	5	5,134
C	Heacham to King's Lynn	55	23	3	1,542
	Total	**146**	**132**	**15**	**10,946**

2.3 Survey dates and times are summarised in Table 2. These were chosen to include a range of day types and times, therefore reflecting a range of visitor levels and activities.

Table 2: Summary of survey dates, start times and weather conditions.

Date	Day type	Start time	Weather summary	Max. temp °C
Sun 12/01/2025	Weekend	09:00	Heavy frost, icy roads, cold and bright	3
Thurs 23/01/2025	Weekday	11:30	Rain showers, cloudy, cold	5
Sun 02/02/2025	Weekend	14:00	Dry, bright, cold breeze	9
Weds 12/02/2025	Weekday	09:00	Overcast, occasional drizzle, light wind	6
Weds 19/02/2025	Half term	11:30	Cloudy, damp, brighter towards end of survey	5
Sat 15/03/2025	Weekend	11:30	Sunny, dry, cold wind	7
Mon 17/03/2025	Weekday	15:00	Dry, bright, cold wind	8

2.4 At each parking location, the total number of vehicles was recorded as well as those specifically within the following subcategories:

- Vans;
- Branded vehicles of professional dog walkers;
- Campervans or cars with caravans;
- Horse boxes;
- Motorcycles;
- Vehicles with roof/rear racks[2]; and,
- Minibuses or coaches.

2.5 Vantage point counts were also conducted at 15 of the parking locations. The vantage points each had a good field of view (e.g. along a beach or from a dune top) and could be easily accessed from parking locations along the transect route. During each vantage point count, all people visible to the surveyor were counted within a set recording area (see Map 1), and were categorised within the following activity types:

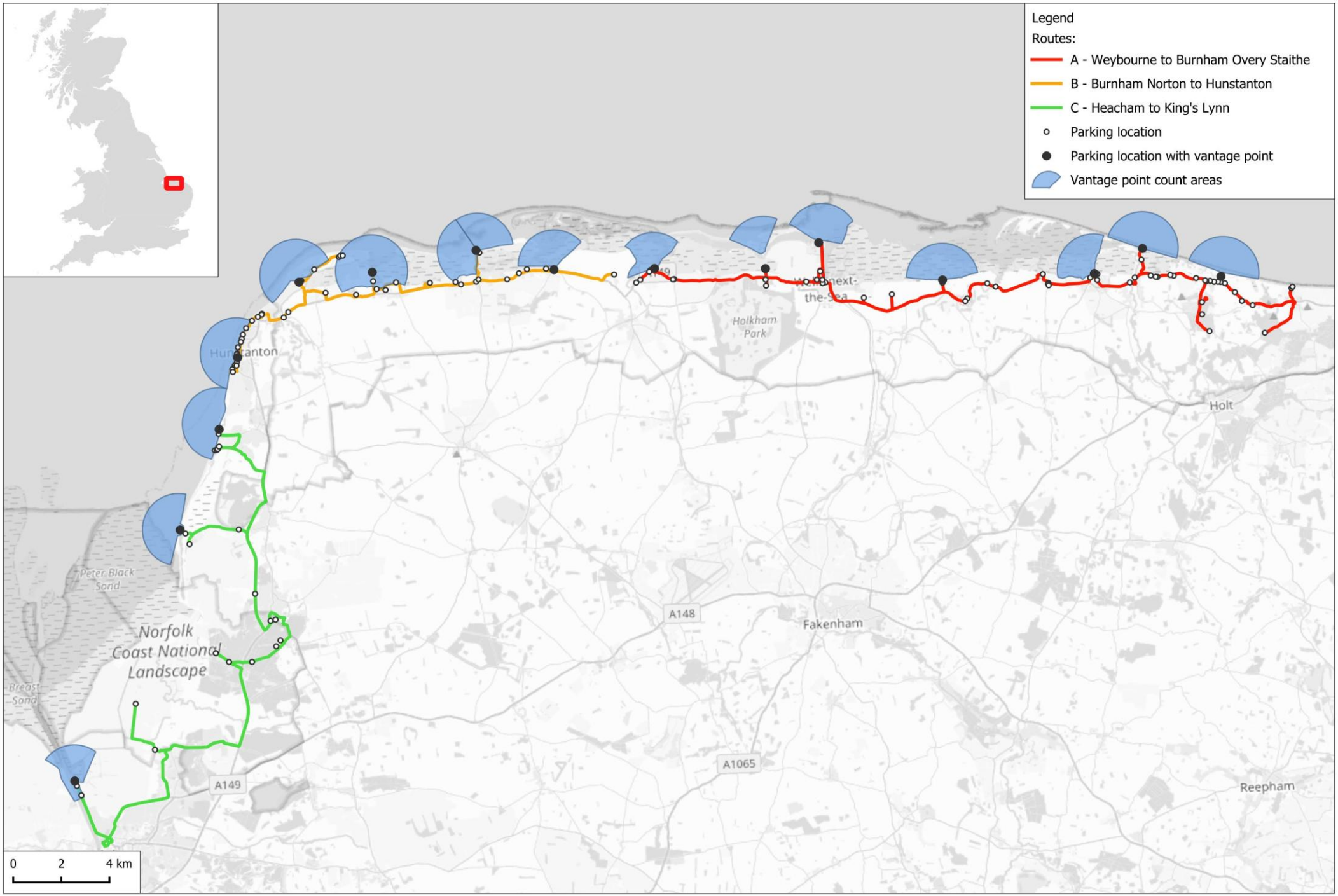
- Walking (without a dog);
- Dog walking (with the number of dogs on/off-lead also recorded);
- Jogging;
- Bird/wildlife watching;
- Cycling;
- Angling/fishing (from shore);
- Bait digging;
- Watersports (including kayaks and paddleboards); and,
- All other activities not listed above.

[2] The roof racks/bars are clear additional structures; not roof rails which are often built on cars.

2.6 At each vantage point, the number of 'active' boats (excluding ones clearly moored and not in use) were also counted, comprising the number of craft, rather than the number of people on board them. The boat counts excluded kayaks, paddleboards, etc. however, which were counted separately within the watersports category and reflected a head count rather than a count of craft.

2.7 Surveyors also recorded the tide state at the time of the count and the percentage visibility of the vantage point count area (e.g. indicating when fog, mist, rain or haze meant that parts of the count area were not clearly visible).

Map 1: Vehicle count and vantage point locations. Inset map locates the study area within a national context.



Vehicle count results

2.8 In total 10,053 vehicles were counted, with the number on each date ranging from 659 to 2,444 vehicles (Figure 2). The highest two counts were made on a weekend in March (2,444 vehicles) and a weekday during the February half term (2,435 vehicles). The three lowest counts were all made on term-time weekdays.

2.9 The mean number of vehicles counted on each date was 1,436, which represents approximately 13% of the total parking capacity (i.e. the number of spaces).

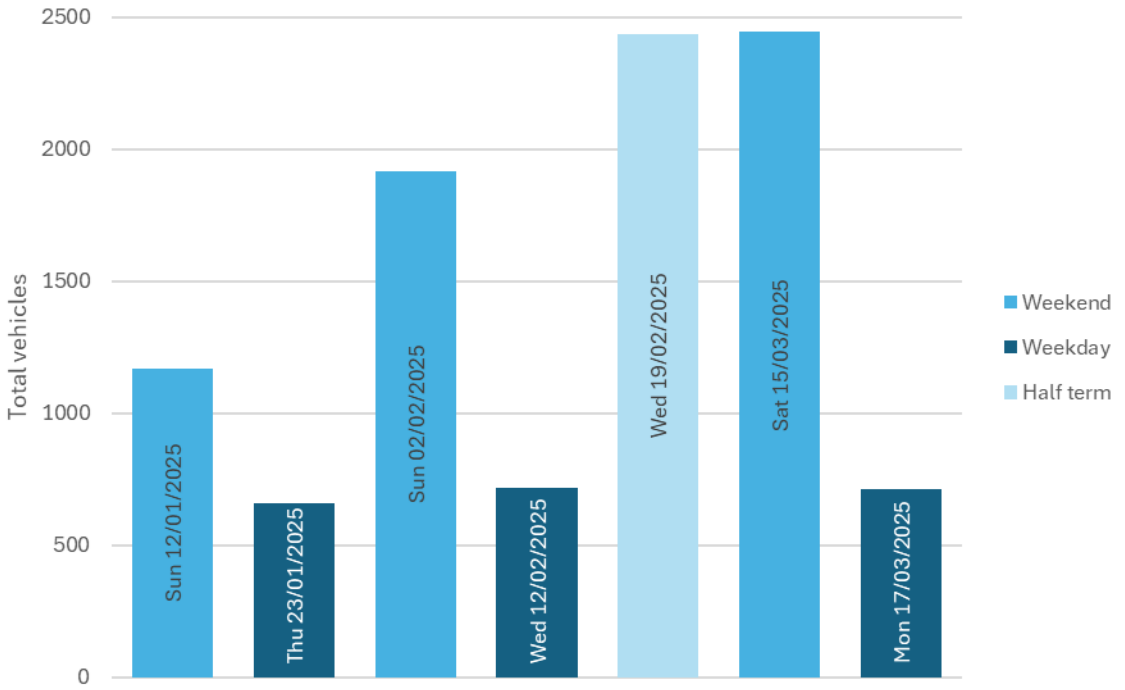


Figure 2: Total number of vehicles counted on each survey date between January and March 2025, stratified by day type.

2.10 The number of vehicles counted at each location is shown in Map 2. The locations with the highest counts were Lady Anne's Drive, Wells Beach, and Sandringham Estate North, with average counts of 113, 106, and 97 vehicles, respectively. The map also shows a concentration of vehicles at Hunstanton (across multiple smaller car parks).

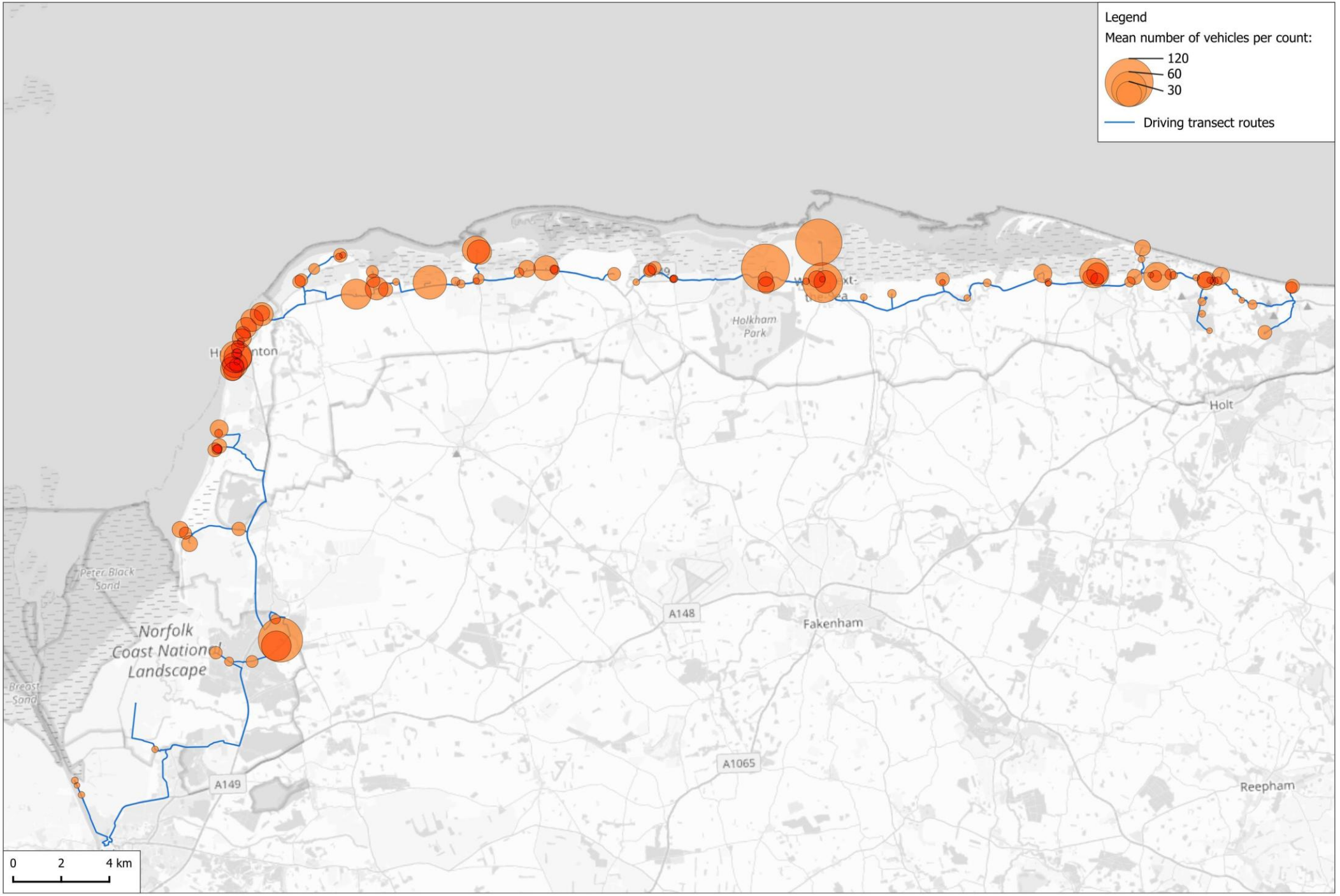
2.11 Table 3 gives a breakdown of the number of vehicles by type. 301 vehicles (3%) with rear mounted bike racks or roof racks were counted, possibly indicating visitors who have brought bikes or kayaks etc. with them. There were 249 vans (2%), and 229 campervans or caravans (2%). Motorcycles,

minibuses, horse boxes and branded dog walking vehicles each made up less than 1% of the total vehicles. Map 3 shows the locations of vans, campervans/caravans and vehicles with rear/roof racks.

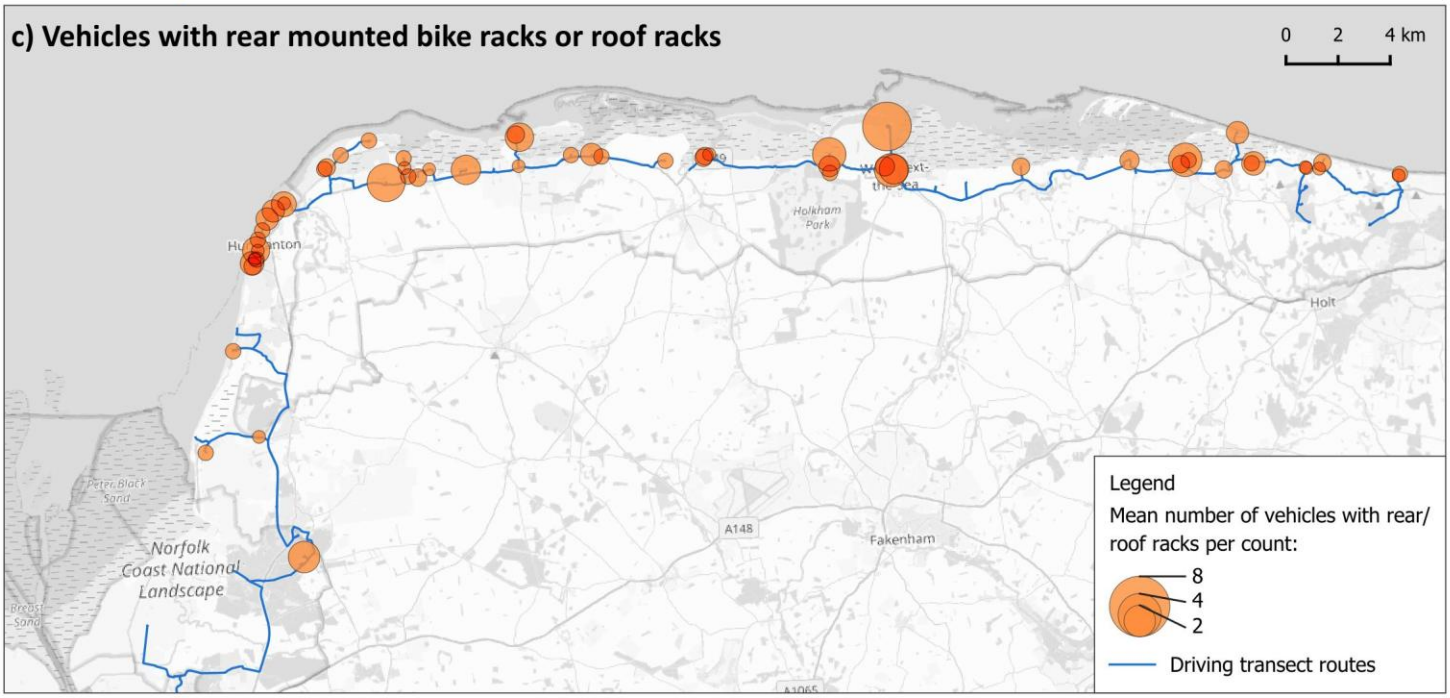
Table 3: Number of vehicles (row %) of each type counted on each date. The highest value in each column is highlighted in red.

Date	Vans	Branded dog walking vehicles	Campervans/ caravans	Horse boxes	Motorcycles	Vehicles with rear/roof racks	Minibus	Total motor vehicles
Sun 12/01/2025	42 (4%)	0 (0%)	22 (2%)	3 (<1%)	1 (<1%)	26 (2%)	0 (0%)	**1,168 (100%)**
Thu 23/01/2025	29 (4%)	0 (0%)	14 (2%)	0 (0%)	0 (0%)	6 (1%)	3 (<1%)	**659 (100%)**
Sun 02/02/2025	39 (2%)	0 (0%)	68 (4%)	2 (<1%)	5 (<1%)	54 (3%)	9 (<1%)	**1,917 (100%)**
Wed 12/02/2025	32 (4%)	0 (0%)	9 (1%)	0 (0%)	1 (<1%)	18 (3%)	3 (<1%)	**718 (100%)**
Wed 19/02/2025	46 (2%)	0 (0%)	40 (2%)	2 (<1%)	2 (<1%)	101 (4%)	1 (<1%)	**2,435 (100%)**
Sat 15/03/2025	37 (2%)	2 (<1%)	64 (3%)	2 (<1%)	15 (1%)	66 (3%)	0 (0%)	**2,444 (100%)**
Mon 17/03/2025	24 (3%)	0 (0%)	12 (2%)	0 (0%)	1 (<1%)	30 (4%)	0 (0%)	**712 (100%)**
Total	**249 (2%)**	**2 (<1%)**	**229 (2%)**	**9 (<1%)**	**25 (<1%)**	**301 (3%)**	**16 (<1%)**	**10,053 (100%)**

Map 2: Parking locations sized by the number of motor vehicles counted at each.



Map 3: Different types of vehicles counted at each location.



Vantage point results

2.12 Each of the vantage points was surveyed at least once during each tide state (categorised as either high, intermediate, or low) and surveyors reported good visibility (100%) for all of the vantage point counts.

2.13 Across all 7 counts, 3,193 people, 458 dogs and 7 watercraft were counted. Figure 3 and Figure 4 present the number of people and dogs on each date. These showed a similar pattern to the vehicle counts, with the highest counts made at weekends and during half term, with much lower counts made on term-time weekdays.

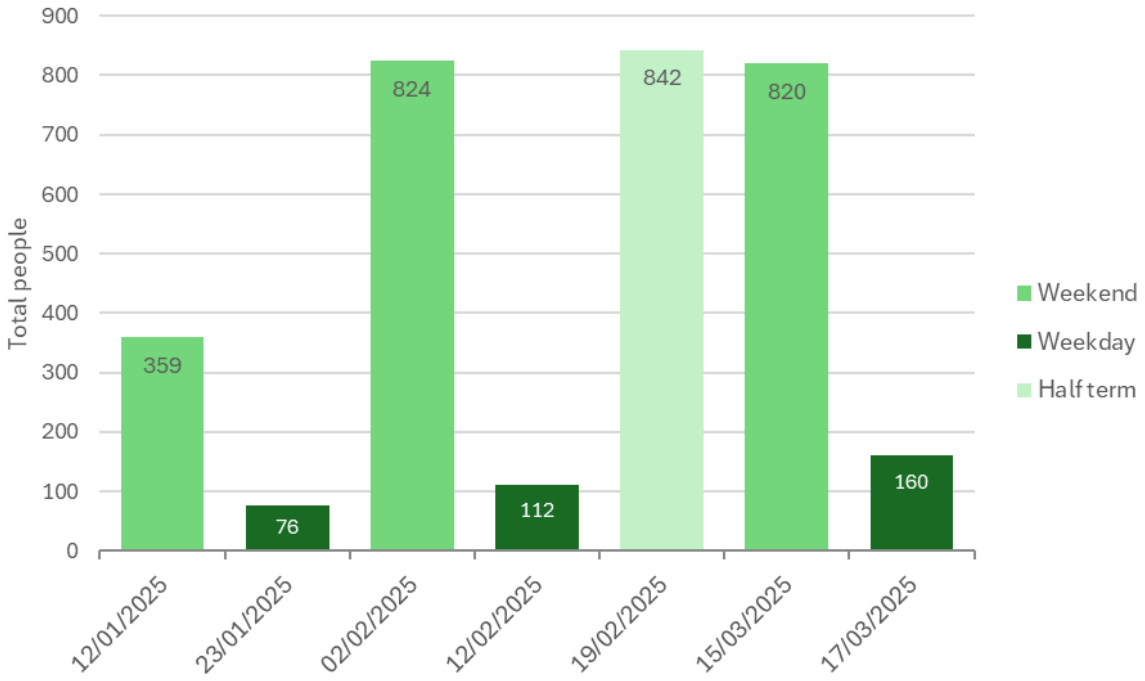


Figure 3: Number of people counted from the vantage points on each survey date between January and March 2025.

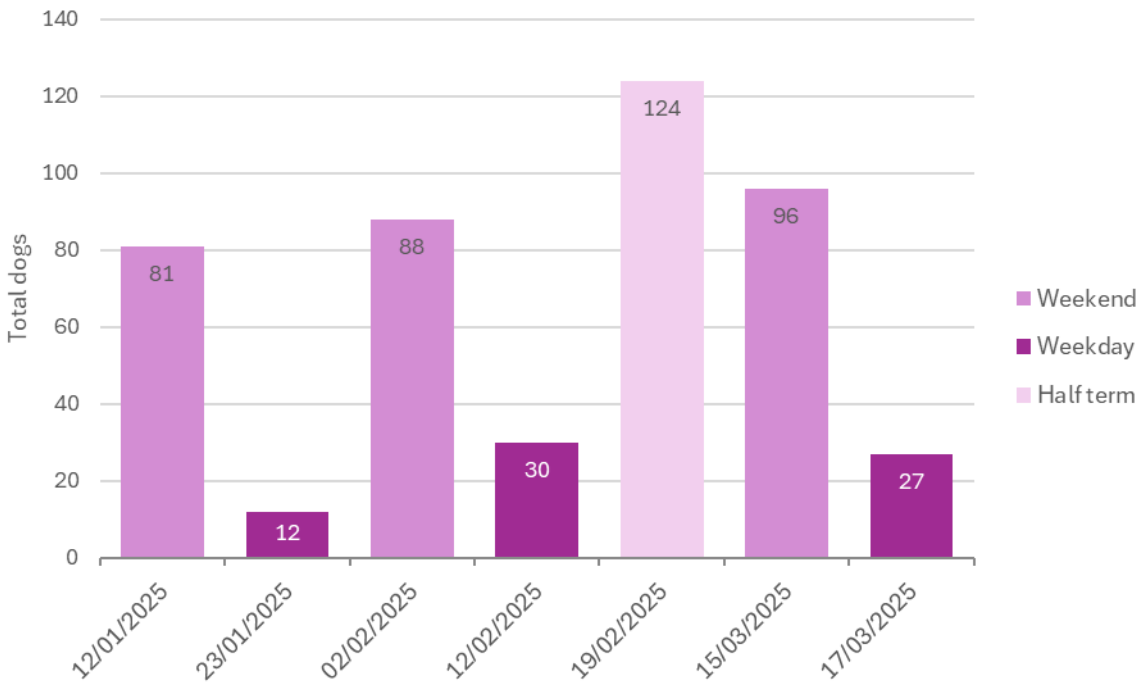


Figure 4: Number of dogs counted from the vantage points on each survey date between January and March 2025.

2.14 The most frequently observed activities were walking (2,183 people; 68% of all activities), dog walking (757; 24%) and bird/wildlife watching (88; 3%). The activities undertaken were similar on each of the day types, although with a higher proportion of walkers at weekends compared to weekdays, and a slightly higher proportion of both dog walkers and bird/wildlife watchers on weekdays compared to weekends (see Table 4).

2.15 Map 4 presents the mean number of people observed at each vantage point location, with pie charts detailing the observed activities. The vantage point at Hunstanton recorded the largest number of people, with an average of 127 people per count. No people were counted at the Cross Bank Road vantage point near King's Lynn.

2.16 Walking was the most commonly recorded activity at all vantage points except for Royal West Norfolk Golf Club car park, looking west, where there were slightly more dog walkers than walkers. Activities which were only observed at one or two vantage points were golf (mostly at Beach Road, Holme), kite flying (on a single occasion at Salthouse Beach), angling/fishing (mostly at Salthouse Beach), and crabbing (all at Blakeney Carnser).

2.17 Map 5 presents the mean number of dogs counted at each vantage point location, with pie charts showing the proportion of dogs that were on or off-lead. At most locations, there were more dogs off-lead than on lead; the only exceptions being at Hunstanton, Stiffkey Saltmarshes and Cley Beach.

2.18 The observations of people and dogs are summarised in Table 5 and Table 6 with a breakdown for the part of the count area (e.g. seawall, saltmarsh, beach, etc.) in which they were seen. Overall, over half of the people (1,696, 53%) were seen on the seawall, promenade or sand dunes. Just over a third (1,099, 34%) were recorded on the beach above the mean high-water mark and the remainder were recorded either on sandflats/mudflats (346, 11%) or in areas of saltmarsh (52, 2%). No one was observed in or on the water.

2.19 Overall, the areas in which dogs were seen matched those where dog walkers were observed. Nevertheless, there were some interesting differences between dogs observed on and off-lead. A higher proportion of off-lead dogs were observed on sandflats/mudflats (26% compared to 6% of on-lead dogs) and a higher proportion of dogs on-lead were observed on the seawall, promenade or sand dunes (59% compared to 35% of off-lead dogs).

Table 4: Number (row %) of people counted within each activity type, stratified by day type. N is the number of counts on each day type. Additional categories have been added for any activities originally recorded as 'other' that were conducted by ten or more people.

Day type	N	Walking	Dog walking	Bird/wildlife watching	Angling/ fishing	Kite flying	Playing golf	Crabbing	Cycling	Jogging	Bait digging	Other activity	Total people
Weekend	3	1,426 (71%)	421 (21%)	45 (2%)	39 (2%)	42 (2%)	20 (1%)	0 (0%)	1 (<1%)	1 (<1%)	0 (0%)	8 (<1%)	**2,003 (100%)**
Weekday	3	211 (61%)	88 (25%)	24 (7%)	2 (1%)	0 (0%)	6 (2%)	2 (1%)	2 (1%)	1 (<1%)	0 (0%)	12 (3%)	**348 (100%)**
Half term	1	546 (65%)	248 (29%)	19 (2%)	6 (1%)	0 (0%)	12 (1%)	8 (1%)	0 (0%)	1 (<1%)	2 (<1%)	0 (0%)	**842 (100%)**
Total	**7**	**2,183 (68%)**	**757 (24%)**	**88 (3%)**	**47 (1%)**	**42 (1%)**	**38 (1%)**	**10 (<1%)**	**3 (<1%)**	**3 (<1%)**	**2 (<1%)**	**20 (1%)**	**3,193 (100%)**

Table 5: Number (%) of people observed within each part of the count areas. The highest value in each row is shaded dark grey.

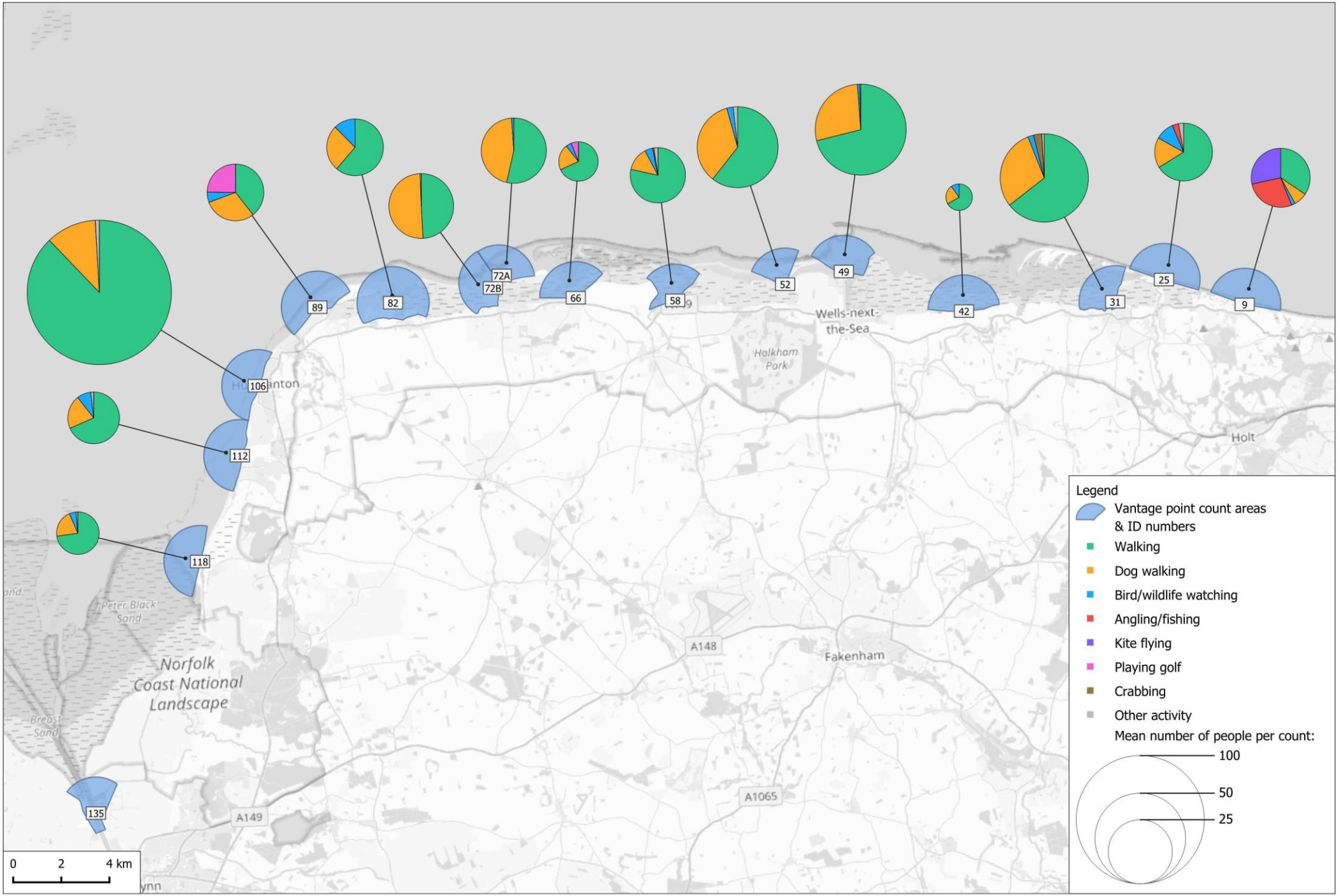
Activity	Seawall/ promenade/ dunes	Saltmarsh	Beach above MHWM	Sandflats/ mudflats below MHWM	Total people
Walking	1,263 (58%)	27 (1%)	713 (33%)	180 (8%)	**2,183 (100%)**
Dog walking	325 (43%)	20 (3%)	287 (38%)	125 (17%)	**757 (100%)**
Bird/wildlife watching	54 (61%)	5 (6%)	26 (30%)	3 (3%)	**88 (100%)**
Angling/fishing	1 (2%)	0 (0%)	24 (51%)	22 (47%)	**47 (100%)**
Kite flying	0 (0%)	0 (0%)	42 (100%)	0 (0%)	**42 (100%)**
Playing golf	38 (100%)	0 (0%)	0 (0%)	0 (0%)	**38 (100%)**
Crabbing	10 (100%)	0 (0%)	0 (0%)	0 (0%)	**10 (100%)**
Cycling	3 (100%)	0 (0%)	0 (0%)	0 (0%)	**3 (100%)**
Jogging	2 (67%)	0 (0%)	1 (33%)	0 (0%)	**3 (100%)**
Bait digging	0 (0%)	0 (0%)	0 (0%)	2 (100%)	**2 (100%)**
Other activity	0 (0%)	0 (0%)	6 (30%)	14 (70%)	**20 (100%)**
Total people	**1,696 (53%)**	**52 (2%)**	**1,099 (34%)**	**346 (11%)**	**3,193 (100%)**

Table 6: Number (row %) of dogs observed within each part of the count areas. The highest value in each row is shaded dark grey.

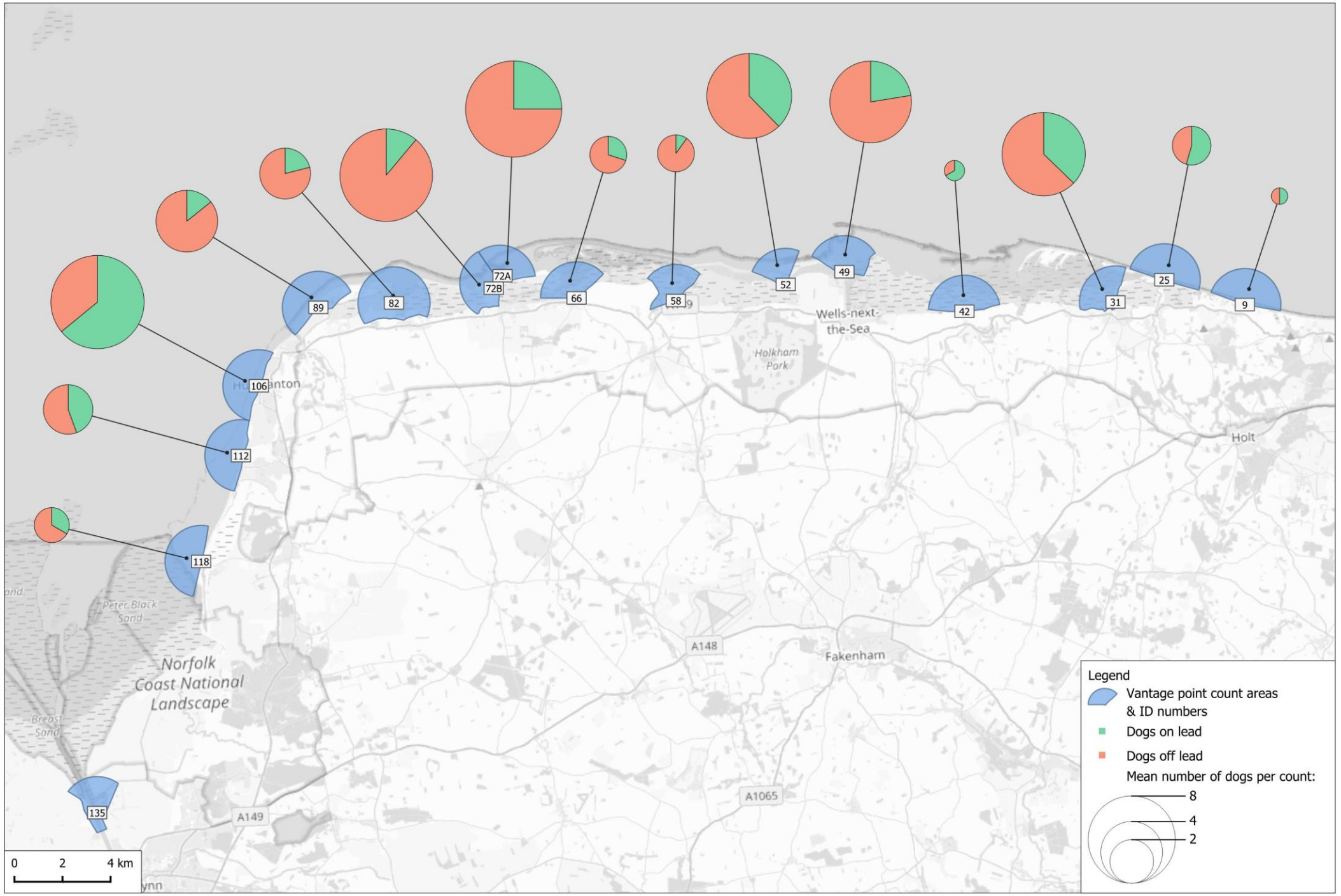
Activity	Seawall/ promenade/ dunes	Saltmarsh	Beach above MHWM	Sandflats/ mudflats below MHWM	Total dogs
Dogs on lead	86 (59%)	1 (1%)	51 (35%)	9 (6%)	**147 (100%)**
Dog off-lead	110 (35%)	9 (3%)	111 (36%)	81 (26%)	**311 (100%)**
Total dogs	**196 (43%)**	**10 (2%)**	**162 (35%)**	**90 (20%)**	**458 (100%)**

2.20 Only 7 boats were observed during the vantage point counts. These comprised 2 boats (1 lifeboat, 1 fishing boat) at Beach Road, Holme (ID 89) and 5 small fishing boats at Cross Bank Road near King's Lynn (ID 135).

Map 4: Mean number of people recorded undertaking each activity during the vantage point counts.



Map 5: Mean number of dogs recorded on and off lead during the vantage point counts.



Comparison with previous data

2.21 The previous survey took place from late March to May 2022. Total vehicle counts across the previous survey (Norfolk coast only) and 2025 survey are shown together in Figure 5. Counts from 2022 ranged from 651 vehicles to 5,818 vehicles on any given survey date and all but one of the 2022 counts were higher than the maximum count recorded in 2025. This is perhaps not surprising given the 2022 counts included the Easter holidays and May, with most counts conducted on days with temperatures well above 10°C. Nonetheless, as Figure 5 shows, the numbers of vehicles on the February 2025 and March 2025 weekend counts were not too dissimilar to the 2022 weekend counts (excluding the Easter holidays). Furthermore, the 4 weekday counts outside the school holiday periods, in March 2022 and January – March 2025 were all very similar, ranging from 651 – 712 vehicles (see Table 7).

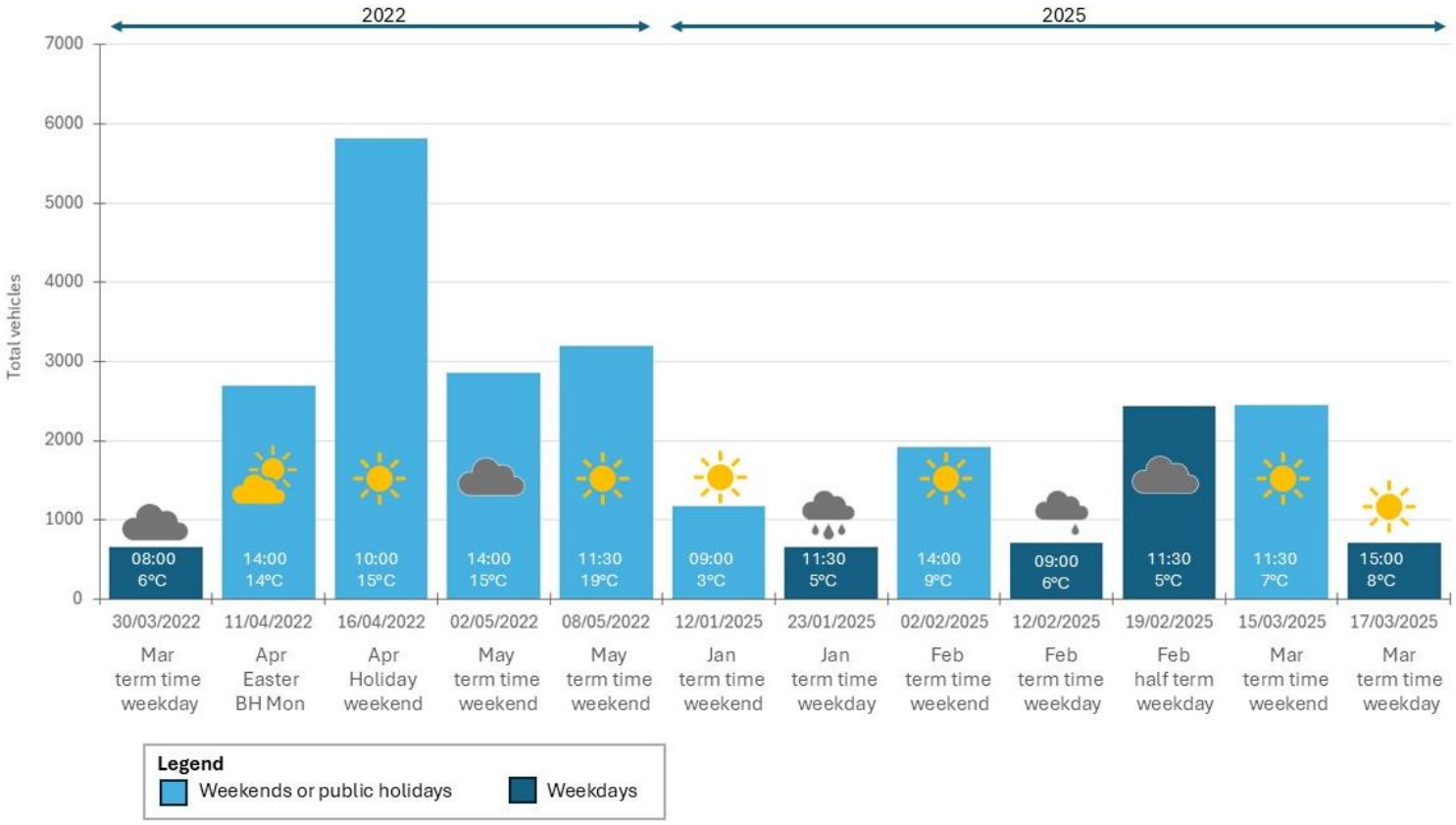


Figure 5: Vehicle totals from 2022 (Norfolk coast only) and 2025, with shading reflecting day type. Start times and temperatures are provided for each survey, and icons provide an indication of the weather.

Table 7: Summary statistics for the total number of vehicles counted along the Norfolk coast only, using combined data from 2022 and 2025.

Time period	Number of counts	Mean (±1 S.E.)	Median	Range
Holiday period	3	3,649 (±1,087)	2,693	2,435-5,818
Weekdays outside holiday period	4	685 (±18)	685.5	651-718
Weekends outside holiday period	5	2,317 (±358)	2,444	1,169-3,197

2.22 The vantage point data show a similar pattern by date to the vehicle counts (see Figure 6). The higher vantage point counts recorded in 2022 were associated with the Easter holiday period and in May. Notably, the vantage point counts in 2022 included watersports at a number of locations, such as Wells Beach, which were not recorded during the vantage point counts undertaken in 2025. In addition, the vantage point at the south end of Hunstanton was particularly busy during the 2022 counts but much less so in 2025.

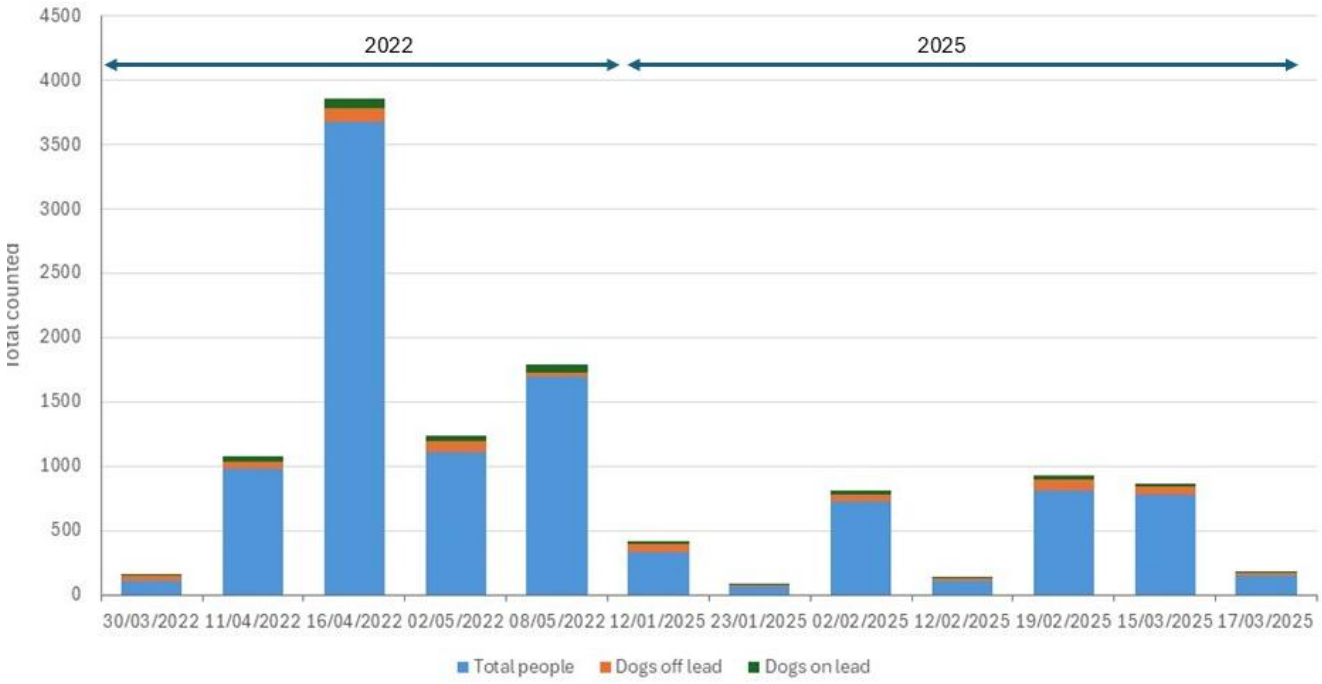


Figure 6: Total counts of people and on/off-lead dogs recorded from the vantage point surveys across 2022 and 2025 . Only those vantage points counted in both years are included.

3. Potential new areas to incorporate

3.1 We undertook a desk-based review of the Norfolk coast area, using a range of GIS data, to look for opportunities to expand the area covered in the 2022 LAC report. In particular we searched for areas, potentially away from the coast, that might work to draw visitors. These are likely to be sites that could be added to the LAC study area as Local Greenspace areas but could also include Town and Village or Destination Sites.

Our approach

3.2 Map 6 shows the Public Rights of Way, CRoW open access land and long-distance footpaths in North Norfolk. These provide an overview of where there is a legal right of access to the countryside.

3.3 To identify potential new sites to incorporate, we drew on the following data sources:

- Ordnance Survey OS Open Greenspace;
- OpenStreetMap, filtered for *leisure=park* or *landuse=recreation_ground*;
- Natural England CRoW Open Access layer.

3.4 These data were filtered to meet the following criteria:

- Within 10 km of the North Norfolk coast;
- Minimum size of 5 ha.

3.5 At this point any duplicates were removed and all remaining sites were checked to see if there is public access for informal recreation. This meant that sites such as golf courses, school playing fields and outdoor activity centres were removed.

Potential list of sites

3.6 Our approach generated a list of 44 sites, as shown in Map 7 and Table 8. Nine of these 44 sites were already incorporated in the previous LAC work in 2022, leaving 35 potential new sites. Table 8 highlights which sites are important for nature conservation (i.e. overlapping a designated site, such as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), or Special Protection Area (SPA)) and also gives the size of each site.

3.7 Map 7 shows that the newly identified sites are mostly clustered around Sheringham and Holt, in the eastern part of the study area, and around King's Lynn in the far south-west. The only large site within the central part of the coast is Holkham Park, which was previously included in the 2022 report. It should also be noted that there is little in the way of Public Rights of Way and Open Access Land in the coastal strip, with extensive blank areas visible on Map 6 in the area just inland of the coast and running between Sheringham and Heacham. This would also imply that there is a dearth of sites away from the coast that are currently options for public recreation.

3.8 The mapping exercise therefore highlights a potential need for new public recreation space within the study area. The following sites comprise those that have been identified away from Sheringham and King's Lynn. All are quite small, but there nevertheless may be scope to provide additional access in the vicinity, expand the areas where recreation is possible, or link with such areas to maximise the potential that already exists in the general vicinity:

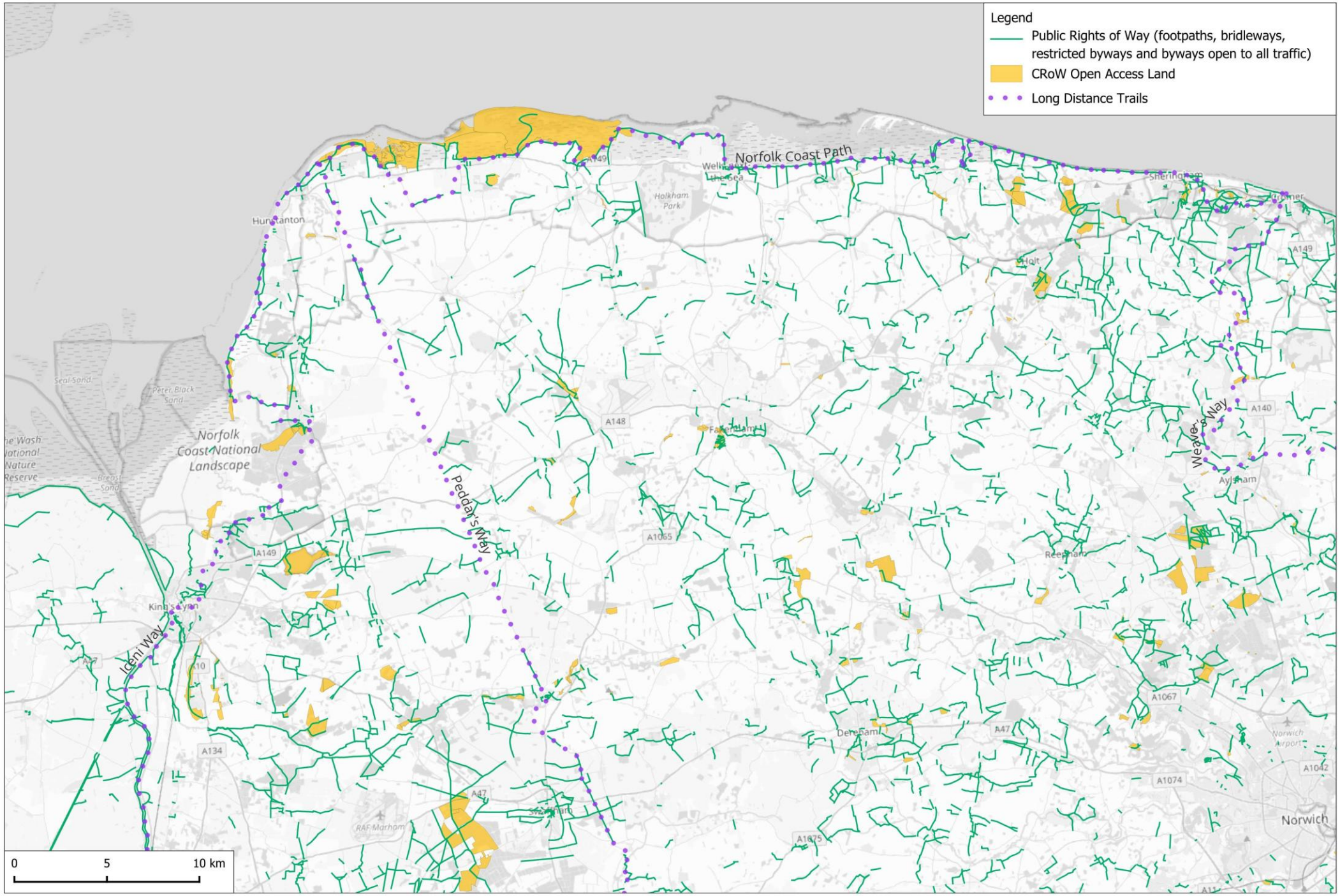
- **Barrow Common (site 2)** sits on top of hill overlooking Brancaster Staithe with views over the coast. It comprises old quarry workings, heathland, woodland and scrub and includes a WWII radar station. There are 3 formal Public Rights of Way bisecting the land, which is also open access.
- **Cockthorpe Common (site 6)** comprises approximately 7ha of chalk grassland on steep slopes in the valley of the River Stiffkey. The site has open access and is bisected by a Public Right of Way.
- **Hunstanton Recreation Ground (Site 19)** is a rectangular area of open amenity grassland and sports pitches totalling approximately 6ha. It is surrounded by housing.
- **Ringstead Downs (ID 28)** is a Norfolk Wildlife Trust (NWT) reserve comprising chalk grassland on the edge of Hunstanton. Approximately 6ha in extent, it is accessed via a permissive bridleway, with a single route running through the site.
- **Snettisham Common Allotment Plantation (site 35)** is also known as Snettisham Common and lies between the village and The Wash. There is a small car park and the site is managed by the Parish Council.

Table 8: Potential additional sites, their extent, and any overlapping designations (note that none of the sites listed overlap an SPA). Those sites that comprise SAC and/or SSSI are probably not suitable for promotion as sites for recreation.

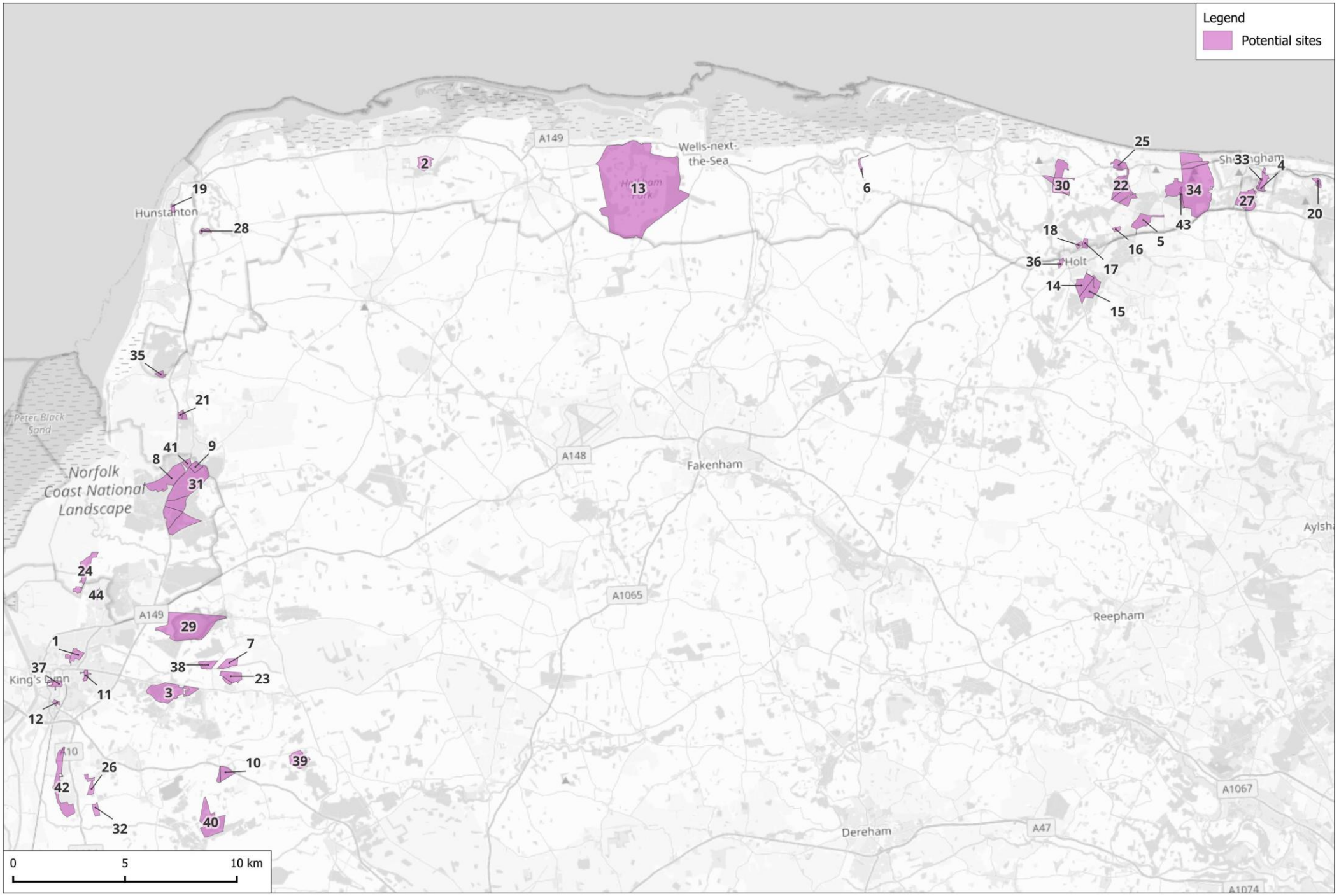
ID	Name	Area (ha)	CRoW open access	SSSI	SAC
1	Alive Lynnsport	25.7			
2	Barrow Common	33.4	✓		
3	Bawsey Country Park	118.8			
4	Beeston Regis Common	22.5	✓	✓	✓
5	Bodham Wood	39.8	✓		
6	Cockthorpe Common	6.9	✓	✓	
7	Derby Fen	25.4	✓	✓	
8	Dersingham Bog	92.1	✓	✓	✓
9	Dersingham Common	16.0	✓		
10	East Winch Common	32.6	✓	✓	
11	Gaywood Park	9.5			
12	Hardwick Road Cemetery	5.0			
13	Holkham Park	1202.2			
14	Holt Country Park	39.6	✓		
15	Holt Lowes	49.0	✓	✓	✓
16	Holt Rugby Football Ground	6.1			
17	Holt Sports Centre	9.0			
18	Holt United FC	5.2			
19	Hunstanton Recreation Ground	5.9			
20	Incleborough Hill	9.3	✓		
21	Ingoldisthorpe Common	12.2	✓		
22	Kelling Heath	92.7	✓	✓	
23	Leziate Fen	41.2	✓	✓	
24	Marsh Common	50.9	✓		
25	Muckleburgh Hill	21.9	✓		
26	North Runcton Common	19.2	✓		
27	Pretty Corner	62.2			
28	Ringstead Downs	7.7	✓	✓	
29	Roydon Common	243.3	✓	✓	✓
30	Salthouse Heath	92.7	✓		
31	Sandringham Country Park	292.7			
32	Setchey Common	13.3	✓		
33	Sheringham Common	5.3	✓	✓	✓
34	Sheringham Park	362.2			
35	Snettisham Common Allotment Plantation	8.2	✓		
36	Spout Hills	6.5	✓		
37	St James Park (The Walks)	15.0			
38	Sugar Fen	22.2	✓	✓	
39	Walton Common	49.7	✓	✓	✓

ID	Name	Area (ha)	CRoW open access	SSSI	SAC
40	West Bilney Wood	107.1	✓		
41	West of Lynn Road	10.4	✓	✓	✓
42	West Winch Common	84.2	✓		
43	Weybourne Wood	9.2	✓		
44	Wootton Park	5.5			

Map 6: Public Rights of Way, Open Access Land and Long Distance Trails



Map 7: Potential additional sites



4. LAC workshop findings

4.1 A workshop was held in March 2025 on the North Norfolk Coast, attended by a range of stakeholders identified by the Partnership. These included site managers, landowners, NGO and local authority representatives, and local Councillors, many of whom also took part in workshops carried out as part of Phase 1 of the LAC project in 2022.

4.2 The main objectives for the workshop were to provide attendees with an opportunity to: (1) view and provide feedback upon the zone/opportunity class maps produced during Phase 1 of the project (including those covering the Lincolnshire coastline); (2) provide feedback on the previously identified standards; and (3) identify a selection of management actions that they would most like to see enacted (from the full list produced during Phase 1), and to make sure that those selected were relevant to the respective zones.

Suggested amendments to Phase 1 LAC mapping

4.3 Table 9 and Map 8 detail the suggested amendments to the LAC Phase 1 mapping suggested by workshop attendees. Most were relatively minor, although observations concerning access within the Holkham Estate were particularly pertinent.

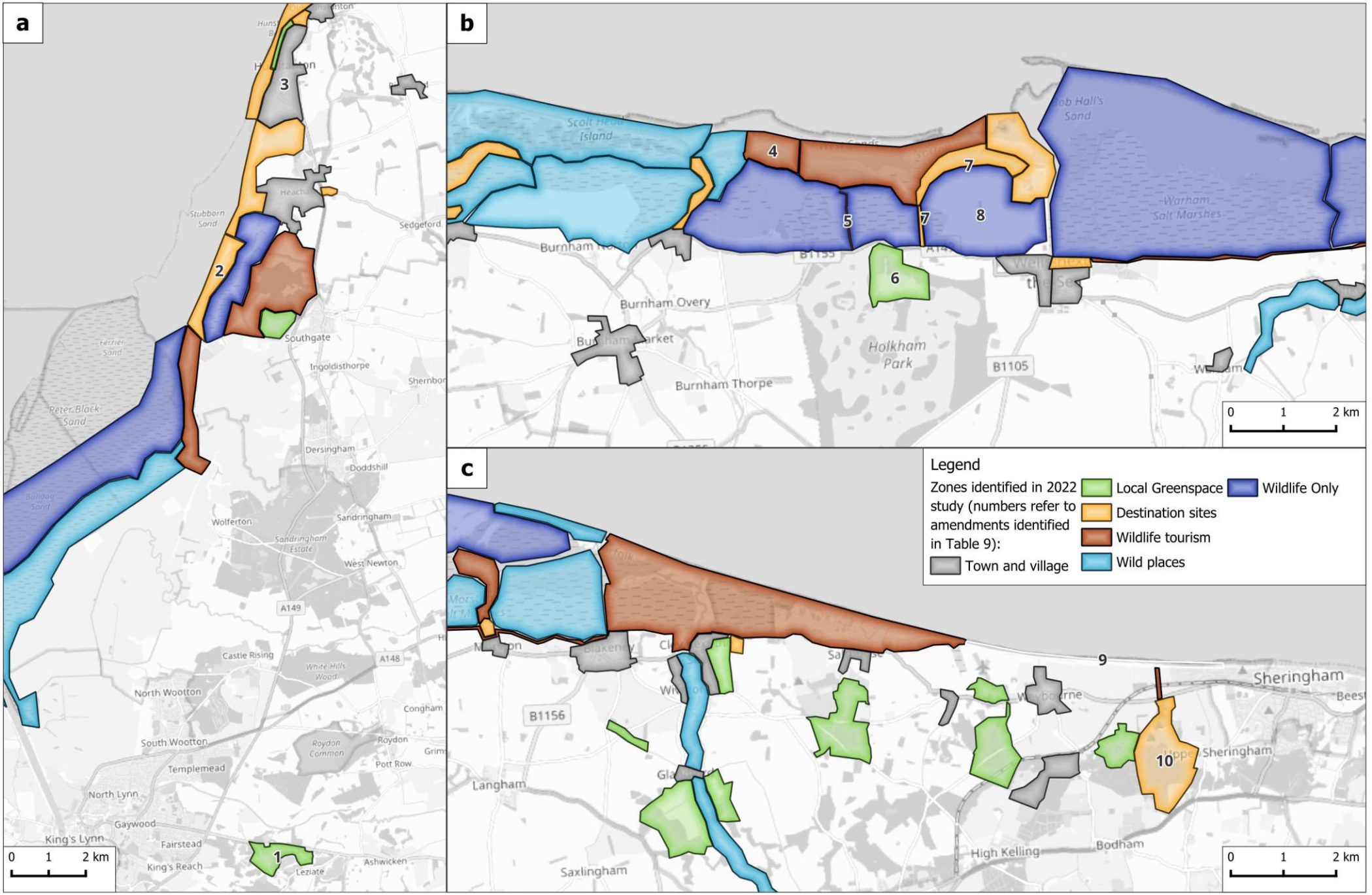
4.4 Another, more general suggestion, that came out of the workshop discussion was for the consideration of seasonality within the zones. This could apply to locations that support sensitive wildlife features at only certain points in the year, such as breeding terns and waders on Blakeney Point. Consequently, there was a suggestion that the latter location could alternate between being a Wild Place and Wildlife Only, seasonally/dependent upon the presence of sensitive features. The creation of an additional zone; Destination Sites with Wildlife Sensitivities was also suggested.

Table 9: Suggested amendments to the LAC Phase 1 zone/opportunity class mapping identified in the 2025 workshop. Please refer to Map 8 for specific locations/extents.

Map 8 reference	Suggested amendment/comment	Relevant zone	Notes
King's Lynn to Hunstanton			
1	Bawsey Country Park (near Leziate) identified as being favoured by those undertaking daily dog walks.	Local Greenspace	Area mapped, although it lies somewhat outside of the Phase 1 LAC study zone.
2	Coastal area southwest of Heacham currently mapped as Local Greenspace should be changed to Destination Sites.	Local Greenspace	Mapped as suggested – note that this change was identified as being practical, rather than aspirational, by the workshop attendee.
3	(Small) areas of Local Greenspace identified as present on the southern periphery of Hunstanton (currently mapped as Town and Village).	Town and Village	Areas not mapped, as they are all <1ha in extent (i.e. below the minimum project mapping resolution) and comprise school and amenity areas within an urban mosaic.
Holkham area			
4	Wildlife Tourism area north of the Holkham Estate should be extended westwards.	Wild Places	Further discussion with Partnership required – potentially revise mapped extent.
5	Track from A149 north of Holkham Estate out to the Decoy Wood Bird Hide (west of Lady Anne's Drive) should be mapped as a Destination Site, as people already access it.	Wildlife Only	Mapped as suggested, although this area would better fit Wildlife Tourism if used to access the bird hide – note that this change was identified as being practical, rather than aspirational, by the workshop attendee.
6	Most of Holkham Park is currently identified as Local Greenspace, but public access is only available to a small area of the (largely private) estate.	Local Greenspace	Mapped as suggested.
7	Destination Site north of Wells should extend round to Holkham to account for walked access route.	Wildlife Tourism	Mapped as suggested.

Map 8 reference	Suggested amendment/comment	Relevant zone	Notes
8	Scolt Head Island should be mapped as Wild Places due to practical management reasons.	Wildlife Only	Mapped as suggested – note that this change was identified as being practical, rather than aspirational, by the workshop attendee.
Blakeney to Sheringham			
9	Thin area of Wildlife Tourism stretching west from Salthouse (north of Weybourne) should not be mapped as Wildlife Tourism.	Wildlife Tourism	Mapped as suggested.
10	Two discrete areas of Destination Site immediately west of Sheringham should be joined up.	Destination Sites	Mapped as suggested.

Map 8: Suggested amendments to the LAC zones identified in 2022 from the workshop participants; (a) King's Lynn to Hunstanton; (b) Holkham area; and (c) Blakeney to Sheringham. Note that mapped areas within which no potential amendments were identified are excluded (please refer to the 2022 report).



Comments on standards

4.5 There was broad consensus amongst attendees that there were too many standards and that many were too complicated or difficult to understand, including the use of both numbers and wording (i.e. low, medium, high) in the descriptions. The wording had been used in the original report to provide a quick, high-level aim alongside the numeric target; however, this clearly caused some confusion and was felt unnecessary. Questions were also asked concerning the seasonality of some of the standards, and how the thresholds had been calculated. There were suggestions that some of the indicators could be merged, with changes/refinements to others also recommended.

4.6 Amongst the latter the following have been identified as being particularly applicable:

- Splitting standards based upon counts of watercraft seperately for working boats and recreational craft; and/or,
- Removing standards based upon counts of boats and using mooring counts instead (potentially only applicable in formal mooring areas however).

Preferred management actions

4.7 Attendees identified a range of management options that they preferred/would like to see enacted, with emphasis placed upon strategic identification and adoption across the North Norfolk coast:

- **Boardwalk installation and improved path infrastructure** – identified as useful tools in identifying "safe" areas for visitors to access;
- **The use of quality interpretation and directed access measures** – including increased usage of (e.g.) QR codes and less physical infrastructure;
- **Seasonal signage with positive messaging** – aimed at influencing visitor behaviour in a positive way;
- **The installation of hides and/or dedicated viewpoints for birds and seals** – there was recognition that people value wildlife and want to see it, but access needs to be managed to minimise disturbance;
- **Wardening and ring fencing of sensitive, ground-nesting, species** – there was recognition from attendees that signage often doesn't work with respect to sensitive species such as

Oystercatcher, Ringed Plover, and Little Tern, and that human presence/fencing may be required during key periods;

- **Seasonal fences and cordons**;
- **The installation of outdoor play structures** – applicable to towns, villages, and local greenspaces, and acting to attract visitor use away from more sensitive areas;
- **Withdrawal of BBQ and picnic facilities** – removal of these facilities from sensitive areas were identified as potentially reducing locations attractiveness to visitors;
- **Provision of dedicated areas for off-lead dogs** – fenced and unfenced;
- **Production of a gazetteer of dog walking locations** – including capacities and potentially funded through local council or developer contributions. Potential for dissemination via web resources such as the Barking Bugle[3];
- **Changes to the distribution of dog bins and bags** – some attendees suggested having fewer bins in strategic locations to encourage pick-up, whilst others were more equivocal about the need for them to be made available more widely; and,
- **Increased engagement and education** – attendees identified a particular need for increased engagement opportunities in schools.

4.8 The full list of potential management actions identified during Phase 1 are provided in the Appendix, alongside their relevance to specific zones and ecological receptors. This table can be used as a "shopping list" by site managers when deciding upon which actions would be most relevant to their location.

4.9 It should however be noted that at least one attendee identified risks posed to ground-nesting birds from the use of nest cages (which may act to attract, rather than deter, predators and pose risks to adult birds), alongside the requirement for extensive monitoring/public engagement associated with them and suggested that their use should be withdrawn as a recommendation in the LAC report. They have been retained in the Appendix but their use caveated to highlight the risks.

[3] https://www.thebarkingbugle.co.uk/

5. Holme case study

Overview

5.1 This case study applies the LAC approach on a local basis focussing on the area around Holme-next-the-sea on the Norfolk coast. The area is one with a range of nature conservation interest and challenges around balancing nature conservation with access, particularly around those visiting with dogs. The case study provides an opportunity to explore how the LAC framework can be applied on a local level and how issues around dog walking can be approached.

Background and context

Study area

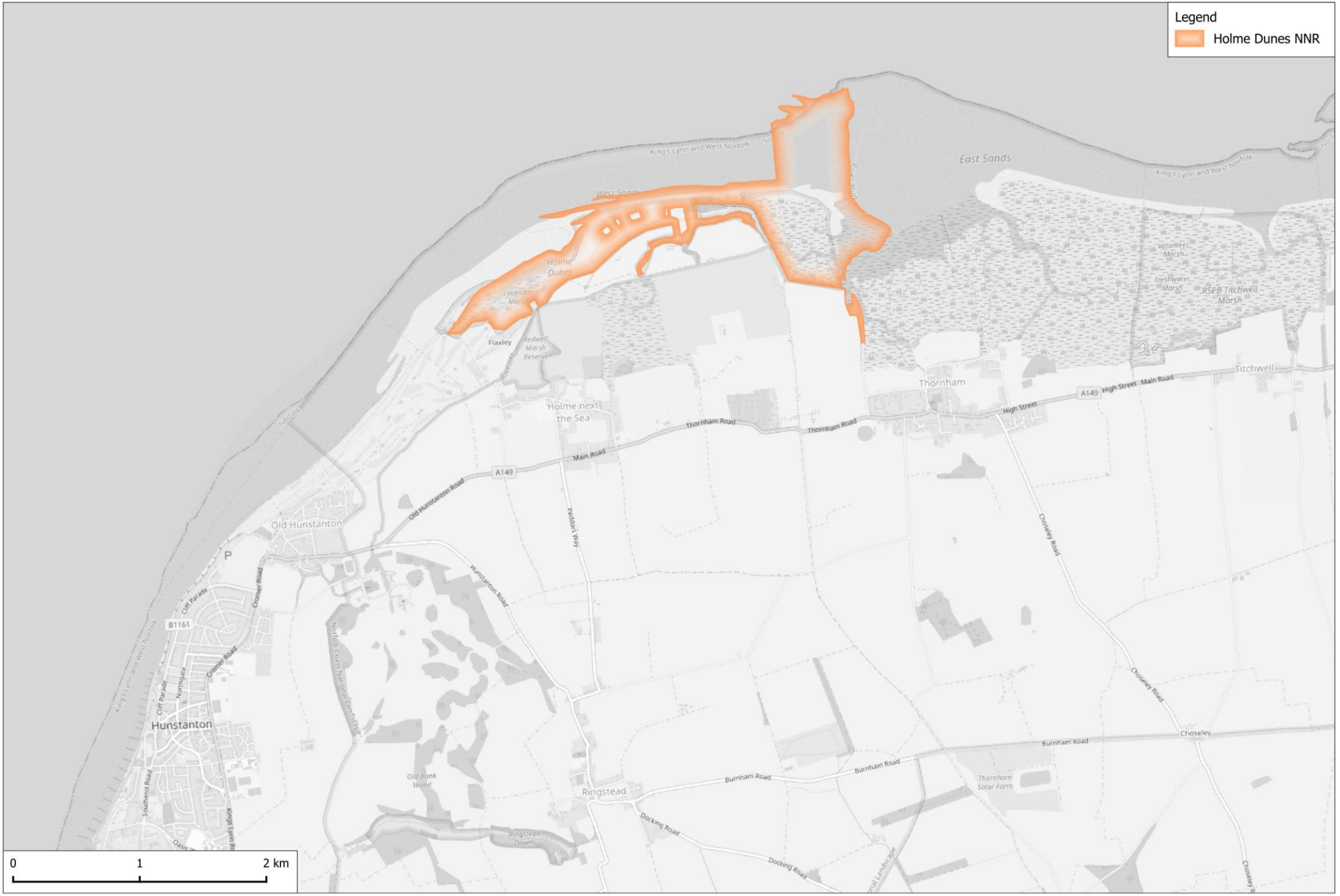
5.2 The case study is centred around the Holme Dunes NNR, an area managed by NWT. The study area extends more widely however, as visitors can access the NNR from numerous points. Furthermore, the promotion and provision of access in neighbouring areas will affect visitor use at Holme. As such, while the NNR is the focus, we have extended the case study to consider the area stretching from the Titchwell Marsh RSPB Reserve in the east to the southern end of Hunstanton in the west (see Map 9).

5.3 A large component of the case study area comprises Holme Beach, which is owned by the Le Strange Estate, with the central part of the case study area predominantly owned by, or leased to, the NWT. The NWT already have controls in place over a large extent of the NNR through the use of a permit system, which manages visitor numbers and access in those areas, but this control does not extend to the privately owned Holme Beach.

5.4 Overall land ownership in the area is however complex. A 2.5ha block east of The Firs is occupied by the Norfolk Ornithologists Association (NOA), who also lease other land near the Firs and own Redwell Marsh, located to the south of Broadwater Road. The saltmarsh and dune habitat north of the houses along Broadwater Road are owned by the Le Strange Estate and managed by the NWT, whilst some of the sand dunes are under different ownership and leased to the NWT. The RSPB own and manage the Titchwell Marsh RSPB Reserve, to the east at Thornham. The golf course between Holme and Old Hunstanton is owned by the Le Strange Estate and leased to Hunstanton Golf Club.

5.5 Background to the study area and further context can be found in the NWT's management plan and also the separate visitor management plan (which extends to cover areas either side of the NWT Reserve/NNR) (Liley, Panter, *et al.*, 2021).

Map 9: Holme case study area (map extent) and location of Holme Dunes NNR.



Visitor use

5.6 The area draws people for a range of recreation use. Hunstanton is a tourist destination with an urban beach front and wide range of visitor and tourist facilities. The beach becomes wilder north of Hunstanton and the open sand flats and sand dunes are popular with dog walkers, walkers and families. The golf club is located in the area between Hunstanton and Holme-next-the-sea. Visitors are also drawn for the wildlife, with visitor centres, trails and hides etc. located on the NWT Holme Dunes Nature Reserve and at Titchwell Marsh RSPB Reserve.

5.7 The main parking locations include large car parks at Hunstanton Cliffs, the beach at Old Hunstanton, and in Holme Village. There is also parking at the Firs (the main parking for the NWT Reserve and NOA) and at Titchwell Marsh RSPB Reserve.

5.8 The Norfolk Coast Path (a long-distance footpath) runs through the area. The study area falls within stretch 47 (Weybourne to Hunstanton) of the King Charles III England Coast Path National Trail, with proposals for this section of the path published but not yet approved[4].

Nature conservation importance

5.9 The following nature conservation designations apply to all or part of the Holme Dunes NNR focal area (links relate to the relevant page on Natural England's designated site view):

- North Norfolk and Gibraltar Point Dunes Special Area of Conservation (SAC);
- Wash and North Norfolk Coast SAC;
- North Norfolk Coast Special Protection Area (SPA);
- North Norfolk Coast Ramsar;
- Holme Dunes National Nature Reserve (NNR);
- North Norfolk Coast Site of Special Scientific Interest (SSSI).

5.10 In addition, a proportion of the site is registered common land, and the NWT have a specific restriction in place for part of the commons regarding open access.

[4] See https://assets.publishing.service.gov.uk/media/67911619119e3470fd1e26aa/coastal-access-england-map.pdf for details

Species and habitats vulnerable to recreation

5.11 There are a number of potential nature conservation issues associated with recreation (i.e. potential risks to the site as a result of public recreational use). Key pathways (adapted from Liley, 2008; Panter et al., 2017), include:

- Disturbance to breeding birds, including accidental trampling of nests (leading to reduced breeding success/productivity);
- Disturbance to non-breeding birds;
- Disturbance to non-avian interest (some mammals, amphibians, and invertebrates can be vulnerable to disturbance);
- Trampling (which can be beneficial, but high levels may be detrimental to the sand dune vegetation communities depending on its extent and intensity, and the existing conditions);
- Erosion (linked to vegetation loss/trampling);
- Eutrophication (e.g. from dog fouling);
- Contamination (e.g. introduction of non-native species, spread of pathogens);
- Increased fire risk;
- Issues achieving the necessary conservation management (e.g. grazing);
- Potential opposition to nature conservation management, including damage to infrastructure such as fences.

5.12 Site features that are vulnerable to recreation impacts are summarised in Table 10. Features have been identified based on a review of relevant citations and species data for the site and discussion with relevant parties. The list is intended to simply highlight those species that are potentially vulnerable. The table also indicates which of five impact pathways (comprising disturbance and direct mortality, trampling, eutrophication/contamination, fire, and interruption to site management) are potentially most relevant to each sensitive feature.

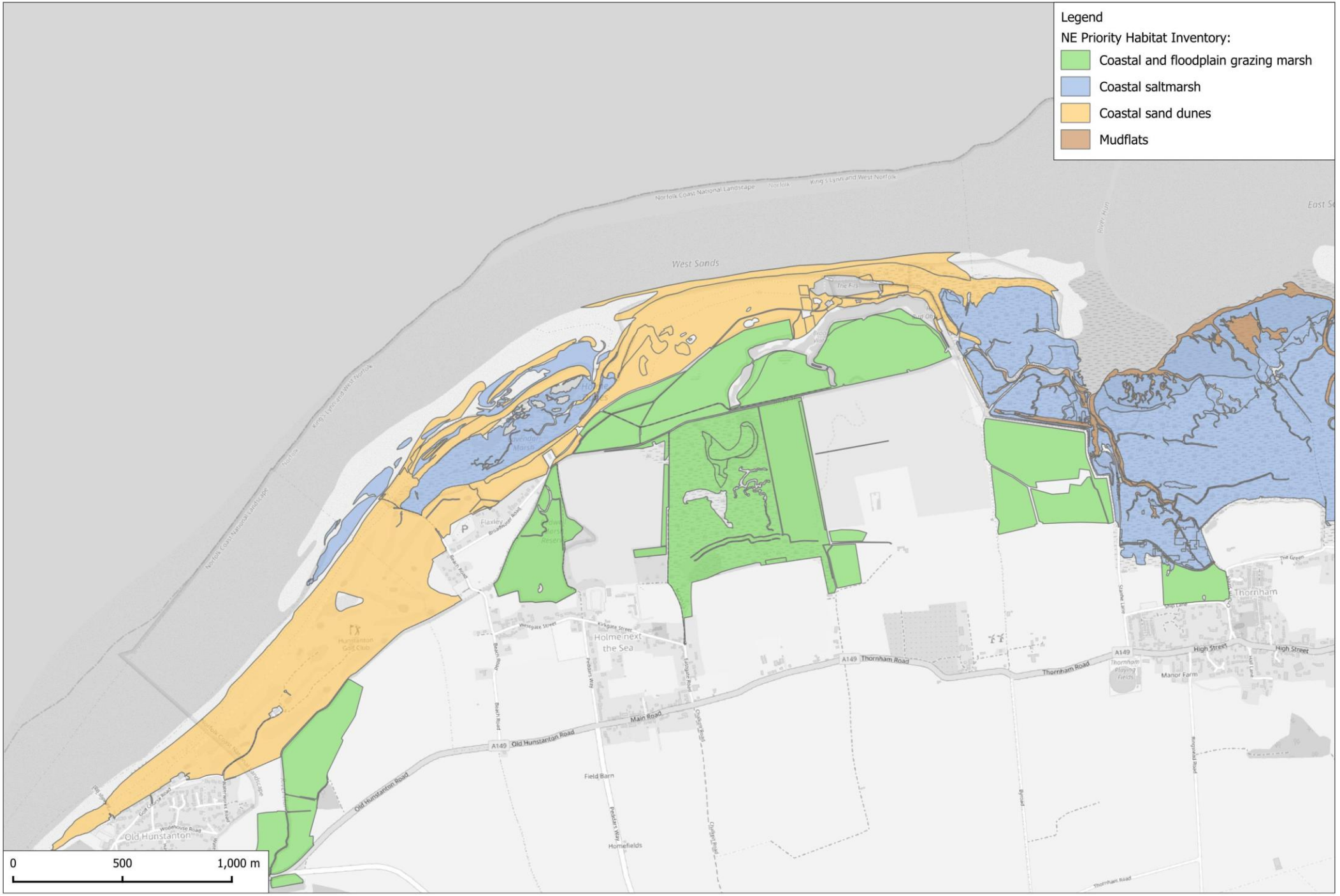
5.13 The distribution of sensitive habitats and/or those that may support sensitive species (e.g. waders on mudflats) are detailed in Map 10 (using Natural England Priority Habitat Inventory classifications), with species distribution data presented in Map 11.

Table 10: Site features vulnerable to recreation impacts

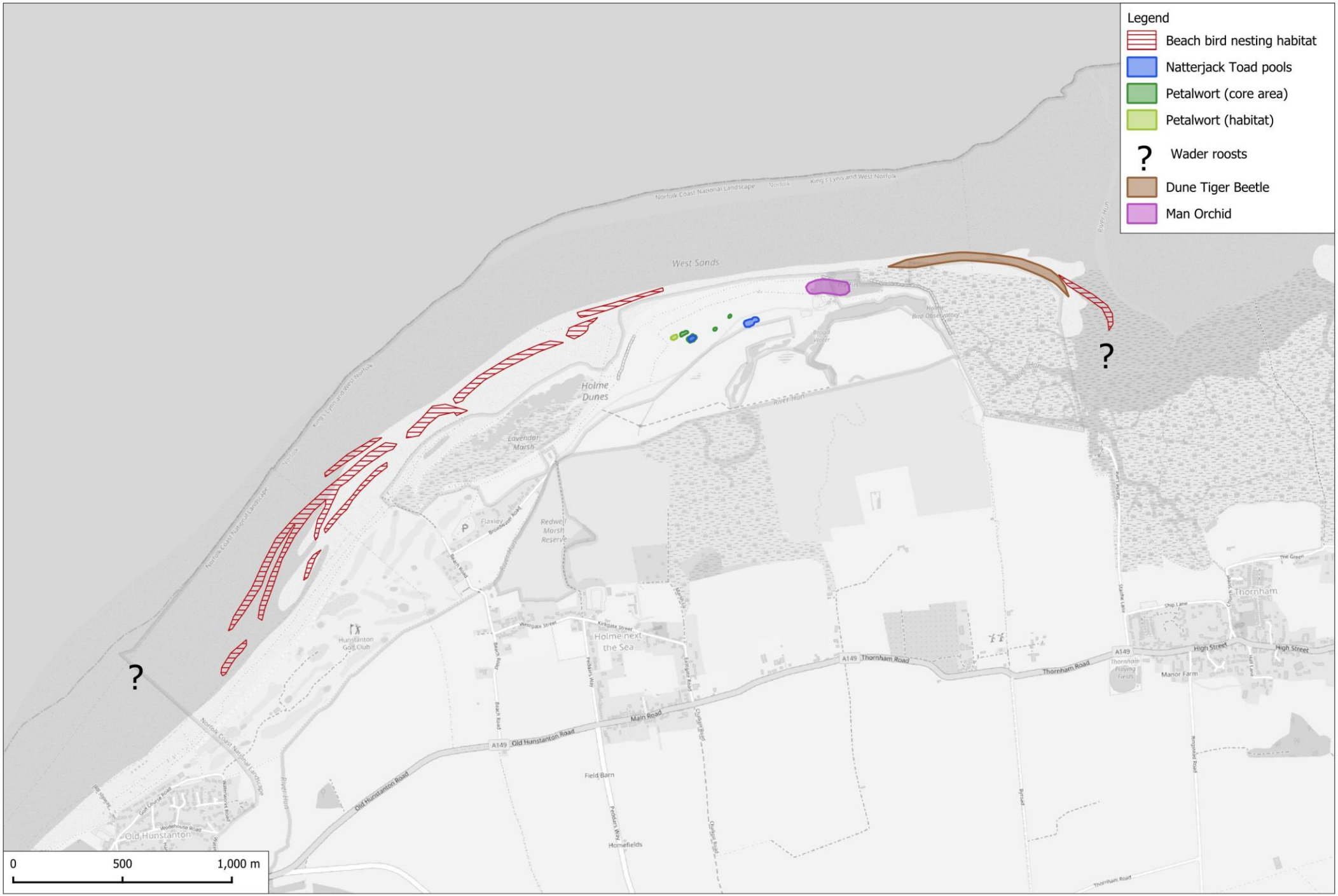
Feature	Impact pathways					Notes
	Disturbance & direct mortality	Trampling	Eutrophication/ Contamination	Fire	Interruption to site management	
Breeding Ringed Plover	✓					Nests on open beach and edge of dunes; disturbance will influence where birds nest and breeding success (Liley and Sutherland, 2007). Current management involves temporary visitor exclosures.
Breeding Little Tern	✓					Nests on open beach; disturbance will influence where birds nest and breeding success (Tratalos *et al.*, 2005; Ratcliffe *et al.*, 2008). Current management involves temporary visitor exclosures.
Breeding Oystercatcher	✓					Nests on open beach; disturbance will influence where birds nest and their breeding success. Current management involves temporary visitor exclosures.
Non-breeding waders and wildfowl	✓					Oystercatcher, Knot, Bar-tailed Godwit, and a range of other waders use the intertidal areas, both for feeding and roosting (with some exceptional counts at high tides). Disturbance will result in avoidance of otherwise suitable habitat and also energetic costs. Wigeon, Pink-footed Geese, Brent Geese, and other wildfowl use the grazing marsh, saltmarsh and sand/mud flats over the winter.
Petalwort		✓	✓	✓	✓	SAC interest feature, rarely recorded and few recent records.
Natterjack Toad	✓	✓	✓	✓	✓	Relatively unaffected by public access (Edgar, 2002) however risks from disturbance (people removing driftwood etc.), and contamination of breeding pools by dogs a potential issue (Groome, Denton and Smith, 2018).
Man Orchid		✓		✓		Small colony near pines/visitor centre.
Dune Tiger Beetle	✓	✓				Tiger beetles potentially vulnerable through disturbance and habitat modification (Arndt, Aydin and Aydin, 2005).
Dune habitats		✓	✓		✓	While some trampling and ground disturbance may be beneficial, foredune habitat particularly vulnerable to trampling damage, resulting in loss of vegetation and erosion (Lake, 2010; Lake and Liley, 2018).

Feature	Impact pathways					Notes
	Disturbance & direct mortality	Trampling	Eutrophication/ Contamination	Fire	Interruption to site management	
Saltmarsh		✓				Potentially vulnerable to trampling damage though largely inaccessible due to creeks etc. and therefore issues potentially localised.
Shingle and drift line habitats		✓				These are dynamic and can change in space and time, trampling a risk where vegetation forming.

Map 10: Habitat data



Map 11: Species data



Reasons Holme selected as a case study

5.14 Dogs have particular nature conservation impacts that differ from other types of access (see Harris, 2023 for review). Particular concerns arising from the presence of dogs relevant to Holme are:

- **Disturbance to breeding birds** (Little Tern, Oystercatcher and Ringed Plover in particular), as dogs pose a particular threat, covering a wider area than people without dogs (Thomas, Papworth and Fellowes, 2024), are perceived by the birds differently (Lord *et al.*, 2001; Cavalli *et al.*, 2016, 2018), elicit different behaviour from birds to people without dogs (Lord *et al.*, 2001; Gómez-Serrano, 2021) and even kill birds (Liley, Lock, *et al.*, 2021).
- **Disturbance to non-breeding waterbirds** as dogs tend to cause disproportionate amounts of disturbance (e.g. Lafferty, 2001) and, in the way dogs off-leads roam, affect a wide area (Harris, 2023; Thomas, Papworth and Fellowes, 2024).
- **Nutrient enrichment** through dog fouling (urine and faeces) in dune habitats, with studies showing enrichment from dog waste is marked and can, for example, be greater than that associated with traffic and changing air quality (De Frenne *et al.*, 2022).

5.15 It is also important to note that, with respect to bird disturbance, the presence of high numbers of potential predators (i.e. dogs) across a beach may result in birds avoiding the area entirely in the first place, either for breeding (Tratalos *et al.*, 2005; Liley and Sutherland, 2007; Ratcliffe *et al.*, 2008) or non-breeding birds (van der Kolk *et al.*, 2022).

5.16 Visitor numbers peaked during Covid and visitor management has since become increasingly challenging. Incident logs maintained by NWT staff at Holme demonstrate a range of incidents associated with visitors and dogs that include:

- Roped cordons around areas used by breeding birds being cut on multiple occasions;
- Dogs entering cordons and key areas for breeding birds;
- A dog killing 2 Hares within the reserve;
- A Muntjac apparently killed by dogs;
- Lost dogs running free around the reserve without owners in sight.

5.17 Dog walkers are among the most frequent visitors and account for a high proportion of recreation use. For example, in the visitor surveys undertaken by Panter *et al.* (2017) at the main car park at Holme Village, the most

commonly cited main activity was dog walking (44% of interviews in the summer, 43% in winter). A proportion of these dog walkers will be local residents, although the totals will also include tourists and visitors from much further afield (therefore playing a role in the local economy).

5.18 In 2022, the NWT ran a public consultation relating to dogs on Holme beach and the potential creation of zoned areas for dogs (with areas where dogs would be restricted and areas where dogs would be required to be on-lead). The NWT received a very strong response, with over 1,700 questionnaires completed and these highlighted very polarised views. For example, 60% indicated they were supportive in principle of the zoned areas and 32% were not. There was strong opposition to any changes from some respondents, however, and it seemed finding a way to balance access and nature conservation was going to be contentious.

5.19 The NWT were keen to pursue changes following the consultation, but a decision was made, nevertheless, not to press forward with steps relating to dog management and zoning. This decision was ultimately informed by the views of the beach landowner, following representations made to them during the consultation, who felt unable to commit to new dog-related signage or controls/zones on the beach. Uncertainty also remained over the proposals for the England Coast Path.

5.20 The NWT are therefore continuing in 2025 with the long-standing approaches of protecting the breeding bird interest through the use of fenced cordons and ranger provision, along with signage and interpretation. Measures such as the cordons and rangers have to be established on an annual basis, are costly to maintain, and are not necessarily a long-term solution. The incident log provides clear evidence that these are also not always effective. Furthermore, it is important to note that the management operations carried out by the NWT are via an informal agreement with the beach landowner and are consequently limited in extent.

5.21 Given these challenges and current issues, using the LAC approach to involve wider parties and stakeholders and consider the issues in a more landscape scale context seems relevant and appropriate.

Examples of visitor management approaches at other sites where dogs are an issue

5.22 As further context to the Holme case study, it is useful to look at other areas and locations where different approaches have been tried and tested. Here we provide examples of approaches applied elsewhere, including infrastructure provision, engagement, awareness raising, and enforcement.

5.23 At the nearby Holkham Estate, around 30% of the beach area within the NNR now has a dogs on-lead requirement over the period 1st April to 31st August each year, with around 70% of the site remaining available for dogs to be walked off-lead, under close control[5]. The requirements are intended to protect ground-nesting birds and are implemented alongside roped cordons (fencing the most sensitive areas), signage and the presence of beach wardens.

5.24 On the Northumberland Coast, the Space for Shorebirds project involves a team of wildlife rangers who patrol the coast. These staff have a positive role in engaging with all visitors, to show people wildlife, and to influence visitor behaviour to reduce disturbance to (both breeding and wintering) birds. The rangers also have enforcement powers and can issue fixed penalty notices relating to dogs off-lead. These powers are enacted via a Public Spaces Protection Order (PSPO) and give the rangers greater confidence and the ability to take decisive action, if the need arises. Other measures in place along the Northumberland Coast include areas where access to the beach is restricted entirely (at part of Ross Sands), deployment of temporary cordons, and an ambassador-type approach where visitors can become 'dog rangers' and take a pledge to follow particular guidance around dogs.

5.25 At Snettisham and Heacham, the RSPB's Plovers in Peril Project also relies on ranger presence and a team of volunteers, who patrol the beach in the summer. The project also uses extensive cordons to limit access to areas with nesting birds (see Figure 7), along with nest cages and cameras on individual nests. The project has been very successful in boosting Ringed Plover numbers and breeding success (see Legg, 2024 for details), however it

[5] For map and background see https://www.holkham.co.uk/journal/we-love-dogs-but-we-love-wildlife-too/

requires considerable resources and limits access to extensive areas of the beach.

Figure 7: Examples of cordons, signs, nest cage (top left) etc. at Snettisham/Heacham, rolled out as as part of the Plovers in Peril Project.

5.26 Burnham Beeches is a woodland site managed by the City of London Corporation. It is an NNR and an internationally important site for nature conservation (an SAC) and is notable for its population of veteran trees. In response to growing concerns about dogs (e.g. in relation to dog fouling and incidents with dogs not being under control) a range of approaches were tried, including a voluntary code of conduct and signage. These failed to address the issues, however, with an observational study showing that less than half of dog walkers picked up after their pet.

5.27 In 2014, following extensive consultation, Dog Control Orders (DCOs) – which later became PSPOs when the legislation changed - were introduced at Burnham Beeches. These required owners to pick-up at all times, limited the number of dogs walked per person at any one time to 4 and also established an area (comprising roughly half of the site) where dogs were required to be on lead at all times. Over the other, approximately, half of the site, dogs were required to be on-lead by direction (i.e. they could be off-lead, but had to be put on a lead if requested by a ranger). A breach of any of these conditions

can result in an on-the-spot fixed penalty notice. Very few of these have been issued however, with all relating to persistent breaches. At the time, the introduction of the DCOs received much opposition from dog walkers and organisations such as the Kennel Club. With time the approach has generally become accepted however, and it is clearly communicated to all visitors on the site website[6], as well as via leaflets, interpretation, and at the visitor centre. Overall visitor numbers dropped initially, and then quickly recovered.

5.28 Bird Aware Solent is a project to reduce disturbance impacts for wintering and breeding birds around the Solent coast, covering approximately 250km of shoreline. Here a mobile ranger team provides an on-the-ground presence, which is coupled with social media, a range of site-based projects, and a dedicated staff member who leads a dog initiative, called Coast and Country Canines. This is a positive initiative that aims to engender change through engagement and awareness raising. There are regular events, guided walks, with training guides and information on where to walk dogs in the countryside (highlighting greenspaces and coastal areas where there are no nature conservation risks) also made freely available. The initiative uses social media, a dedicated website and face-to-face contact to spread the message. There are a number of other similar initiatives around the country, including Dorset Dogs and Devon Loves Dogs.

Application of LAC to the Holme area: key concerns

5.29 Phase 1 of the LAC work, carried out in 2022, focussed on four key concerns. These are all relevant to Holme, particularly disturbance to breeding and wintering birds, and trampling of coastal habitats. Disturbance to seals is less of a concern given there is currently no major haul out or breeding location within the case study area.

Application of LAC to the Holme area: zones

5.30 Map 12 shows the zones mapped for the Holme area during Phase 1 of the LAC project as. It can be seen that:

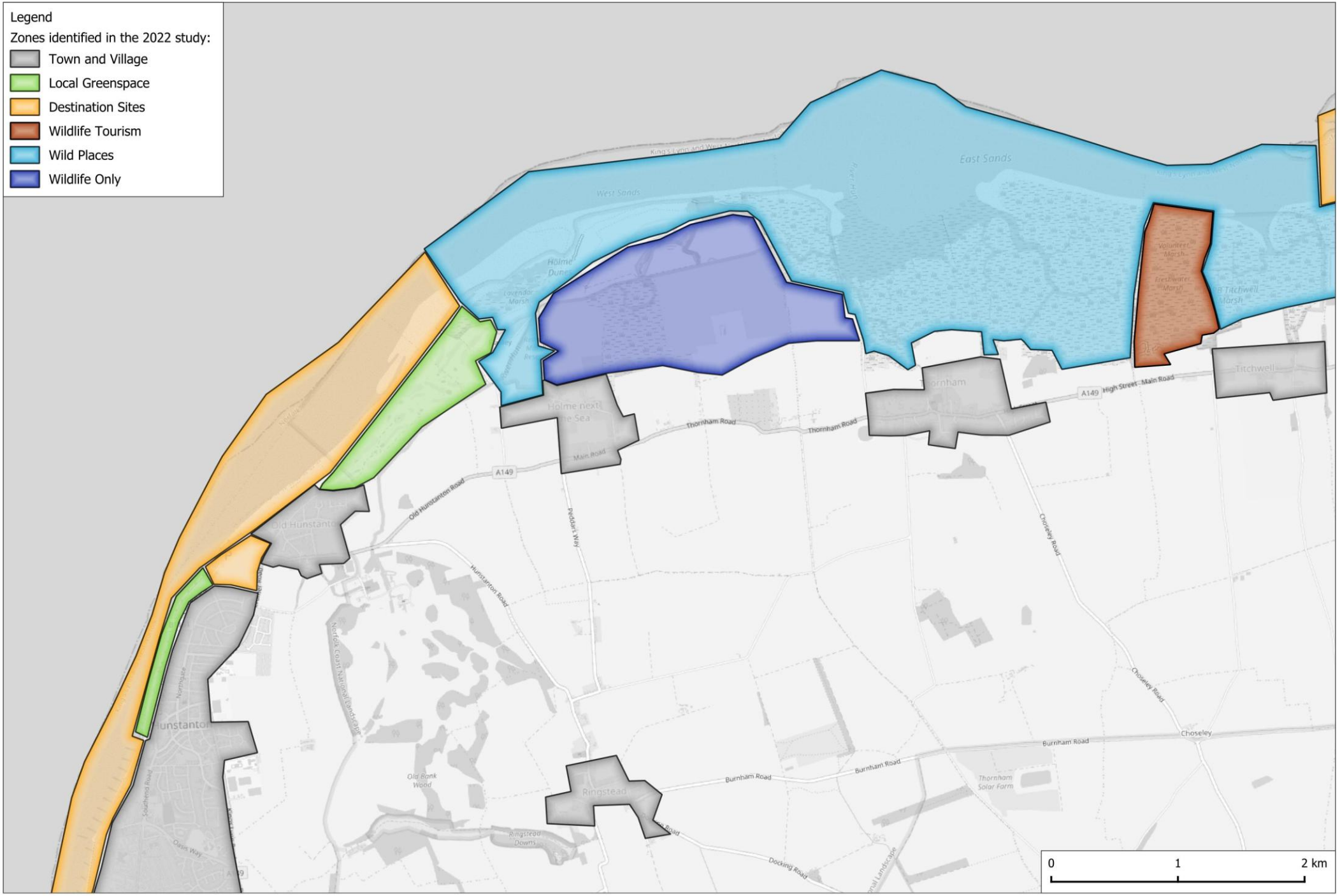
- Much of Holme Dunes NNR is mapped as **Wild Places** (pale blue), including the saltmarsh and sand dune areas. The aspiration is

[6] See https://www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beeches-and-stoke-common/public-spaces-protection-orders

therefore that these areas should have a remote feel, with low visitor numbers and include wilder areas with few people;

- Titchwell Marsh RSPB reserve, lying to the east, is mapped as **Wildlife Tourism** and is the only area in the vicinity that falls into this category. This is therefore the key location in the area that can accommodate high numbers of people coming to view nature, and be promoted as such;
- The area of coast to the south-west of Beach Road, extending all the way to Hunstanton and including Hunstanton beach front is mapped as **Destination Sites**. The aspiration is therefore that this part of the coast should have the principal draw, with large numbers of visitors and facilities to match. This zone includes extensive areas of open sandflat and beach. Given that the zone merges into Wild Places at the northern end, it might be expected that visitor numbers and infrastructure for the Destination Site should be focused at the Hunstanton end, with a (decreasing) gradation towards the Wild Places zone; and,
- The golf course is included in the LAC zones and is mapped as **Local Greenspace (**i.e. it is local countryside that provides for local access). While the site is clearly managed primarily for golf, there is a public footpath running along the inland side of the course allowing for enhanced access.

Map 12: Zones identified in the Phase 1 LAC study carried out in 2022.



Application of LAC to the Holme area: standards

5.31 The standards are intended as a guide, providing a means to check how well each area is working and meeting the expectations assigned for each zone type. When standards are either exceeded or unmet, this is a potential trigger for interventions and for management to change.

5.32 Standards were set in the 2022 report (see Table 8 in Liley *et al.* 2022) using data on visitor numbers, parked vehicles, bird numbers, and SSSI condition.

5.33 In this section we apply the standards, drawing on a range of data sources (including the 2022 and 2025 vehicle counts and vantage point surveys), to the Holme area.

Vantage point counts (counts of people, dogs etc.)

5.34 The standards on visitor numbers reflect the actual number of people, dogs and boats on the beach and intertidal habitats. These are intended to provide a means to check that, for example, Wild Places remain relatively quiet while Destination Sites are busy.

5.35 Relevant standards are listed in Table 11. The targets given in the table are those that relate to Wild Places and these are checked against the data from the vantage point at the end of Beach Road (VP89). The surveyor parked the car at Beach Road and followed the path across the golf course to obtain a view of the beach and open coast area. All people, dogs and boats that were visible were counted.

5.36 As a worked example, the first row of Table 11 indicates a relatively low target of 0-2 dogs off-lead per km of beach. Roughly 3km of beach were visible from the vantage point and a total of 14 dogs off-lead were counted on the beach (as opposed to the dunes, saltmarsh, or other intertidal habitat) across all transects (with 2 dogs counted in 2022 and 12 in 2025). This gives an average of 0.4 dogs per km – the value applied in Table 11. This is well within the standard of 0-2.

5.37 As can be seen from Table 11, no standards were exceeded or unmet from the vantage point data. Nonetheless, the standard relating to the number of people on the beach is nearly exceeded (value applied 4.7; standard 0-5). Furthermore, the maximum count of people on the beach on a given date

(48, in 2022) is well above the standard, suggesting that this standard is sometimes exceeded.

Table 11: Standards from the vantage point data. Targets are those that relate to Wild Places, and the data are drawn from vantage point 89, near the Beach Road car park at Holme

Standard	Target	2022 data (5 counts)	2025 data (7 counts)	Value applied	Notes
Dogs off-lead on beach per km	0 to 2	2 in total, range 0-2	12 in total, range 0-6	0.4	VP89 was on the golf course edge near the Beach Road car park. Dogs were counted here as being walked on a range of habitats (not just beach). Value of 0.4 calculated from a total of 14 dogs counted on beach across 12 transects and a 3km length of shoreline visible
Dogs off-lead on intertidal per km^2	1 to 2	9 in total, range 0-6	1 in total, range 0-1	0.4	Using data from VP89. Value of 0.4 calculated from total of 10 across 12 transects and an area of intertidal visible around $2km^2$. Clearly use of these areas is tide dependent. Max count of 6 is the top end of the standard.
Dog walkers per km	1 to 8	29 in total range 1 – 12	41 in total, range 3-12	1.9	Using data from VP89. Value of 1.9 calculated from 70 dog walkers counted in total, with approx. 3km shoreline and 12 transects. Max of 12 is well within standard.
Total people on beach per km	0 to 5	70 in total, range 0 - 48	30 in total, range 0-8	4.7	Using data from VP89. Value of 4.7 calculated from a total of 100 counted on beach across 12 transects and a 3km length of shoreline visible. Max count of 48 is well above standard (would give value of 16 per km)
Total people on intertidal per km^2	0 to 10	28 in total, range 0-15	2 in total, range 0-2	1.3	Using data from VP89. Value of 1.3 calculated from total of 30 across 12 transects and an area of intertidal visible around $2km^2$. Max count of 15 below standard.

Vehicles

5.38 The vehicle count data from 2022 and 2025 are shown in Map 13, with the data summarised for each parking location in Table 12.

5.39 The standards use vehicle numbers as a proxy for the level of recreation use (i.e. busyness of sites) and also the ease of visiting sites. For certain zones, such as Destination Sites and Town and Village, the standards reflect high numbers of cars but also a high proportion of available spaces. This ensures that these areas are easy to visit and that visitors can be confident of finding a place to park. The standards therefore relate to the number of vehicles and the % occupancy per km of shoreline in each zone, as multiple small car parks along a short stretch of coast could be equivalent to one large car park. In Table 13 we therefore combine the data for each zone to give the relevant values per km of shoreline around Holme.

5.40 For example, Table 12 shows that there are 13 different car parks located within areas mapped as Wild Places. Table 13 shows that, cumulatively these 13 car parks have an approximate capacity of 758 and that 1,555 vehicles were counted in total using them across the combined 2022 and 2025 transects. This gives an average of 129.6 vehicles per transect for the areas mapped as Wild Places around Holme. The Wild Places zone is approximately 5km in extent, therefore producing an estimate of approximately 25.9 vehicles per km^2, which is above the standard (of 0-15) identified in Table 13.

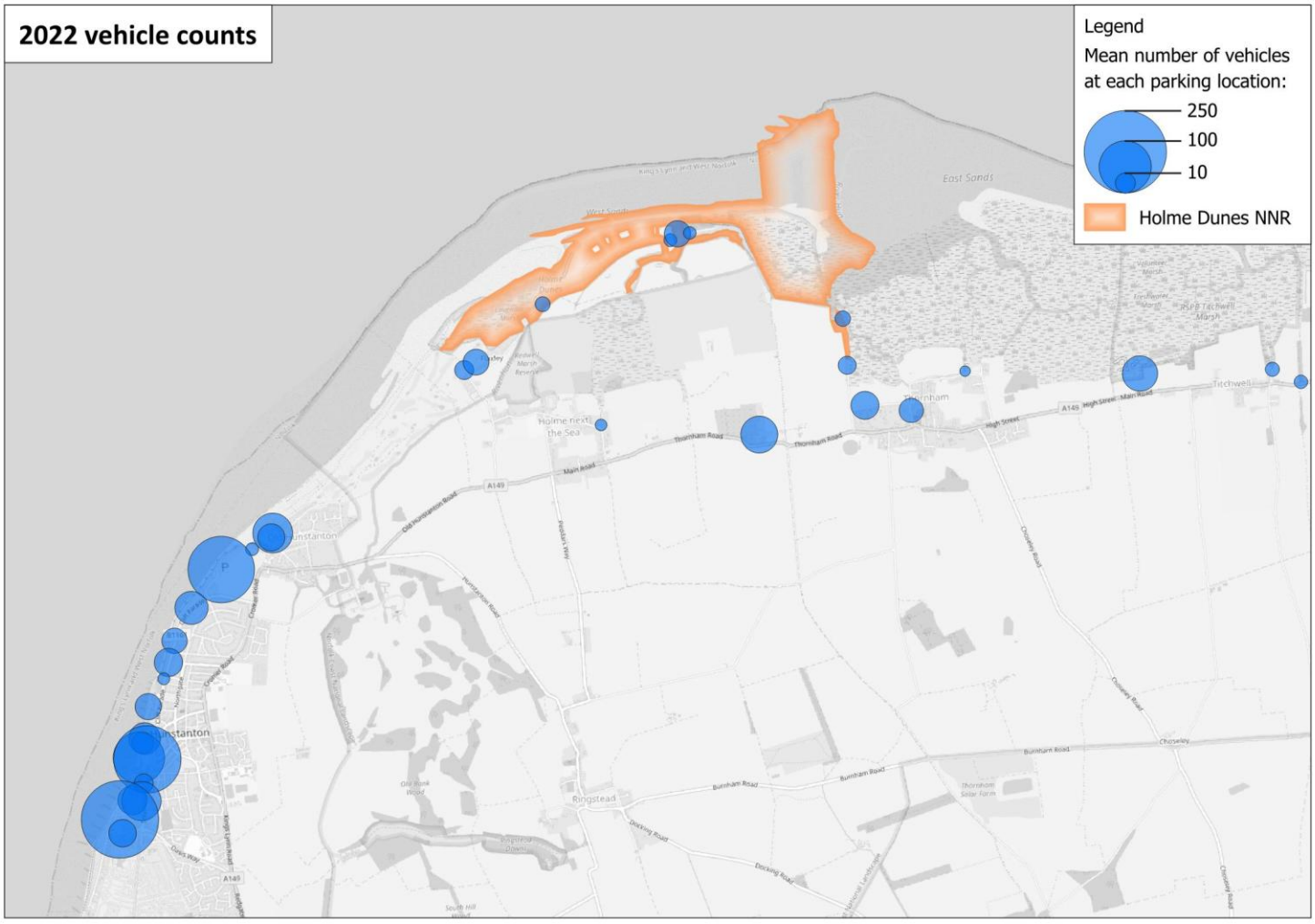
5.41 Drawing on the totals in Table 13, it can be seen that:

- The Wildlife Tourism zone (comprising Titchwell Marsh RSPB Reserve) doesn't quite meet the standard for the number of vehicles (i.e. it could be busier). The % occupancy is above the standard however, suggesting this could be an area where more parking spaces could be created;
- For the Wild Places zone, the number of vehicles is above the standard whilst the % occupancy is well below the standard, suggesting that there are too many parking spaces available and that parking provision in this area is quite high. The main parking locations that contribute to this total are the Beach Road car park, Holme NWT (the Firs) and Drove Orchard (the Farm Shop, Eric's Fish and Chips etc). This latter location is on the main coast road and there is a footpath providing access to the coast around 150m from the parking area. However, it is likely that most of the cars parked there are simply people accessing the shops. If this location

is excluded entirely from the estimates, the standards for Wild Places are still not met in terms of total vehicles or % occupancy; and,

- The Destination Sites zone, which we have identified as the length of coast extending around to Hunstanton Cliff Parade, is also not meeting the standards. Here, by contrast, the number of vehicles per km of shoreline is too low and the % occupancy is also too low, suggesting that there are lots of underused parking spaces and too few vehicles.

Map 13: Parking locations close to Holme



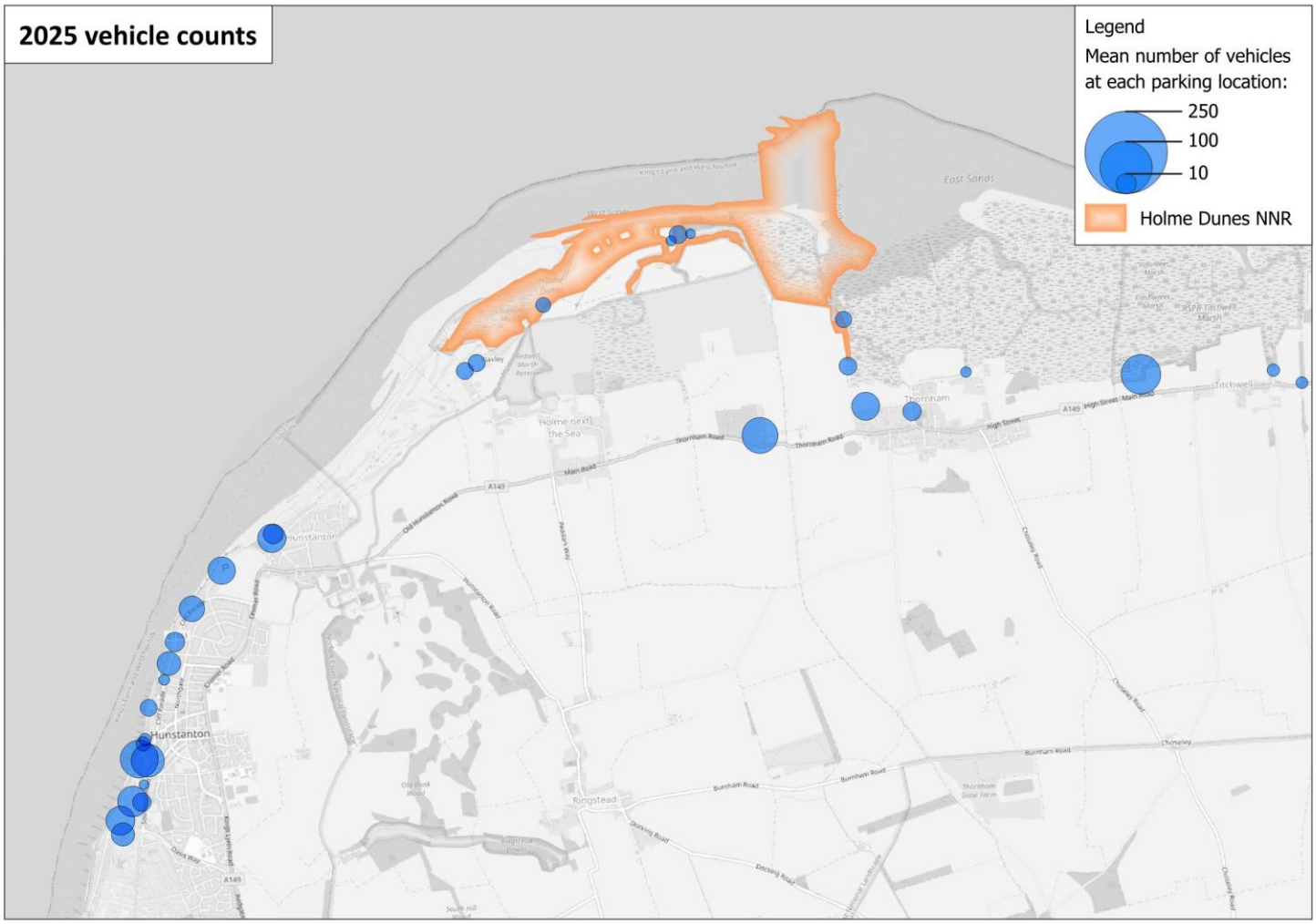


Table 12: Vehicle count data from 2022 and 2025 for parking locations around Holme (ID refers to a unique identification number used in Map 24 of the 2022 report). Where parking locations relate to multiple zones (e.g. on a boundary) then the most relevant zone has been assigned.

ID	Name	Zone	Approx. capacity	Total vehicles 2022	Total vehicles 2025	Total vehicles both yrs	Mean no. vehicles	% occupancy
77	Titchwell Marsh RSPB Reserve	Wildlife Tourism	160	215	388	603	50.3	31
78	The Green	Wild Places	3	3	4	7	0.6	19
79	Church Street	Wild Places	26	86	55	141	11.8	45
80	Lifeboat Inn	Wild Places	68	123	171	294	24.5	36
81	Thornham Old Harbour	Wild Places	20	36	47	83	6.9	35
82	Thornham Old Harbour	Wild Places	60	21	35	56	4.7	8
83	Eric's Fish and Chips / Drove Orchard	Wild Places	95	237	310	547	45.6	48
84	Kirkgate / Eastgate	Wild Places	3	6	0	6	0.5	17
85	Broadwater Road	Wild Places	12	19	26	45	3.8	31
86	Holme NOA large CP	Wild Places	40	8	3	11	0.9	2
87	NWT Holme Dunes Visitor Centre	Wild Places	80	84	49	133	11.1	14
88	Holme NOA small CP	Wild Places	8	7	2	9	0.8	9
89	Holme Beach Rd	Wild Places	13	42	40	82	6.8	53
90	Holme Beach Rd CP	Wild Places	330	100	41	141	11.8	4
91	A149 gateway	Destination	3	0	0	0	0.0	0
92	A149 / Hunstanton Rd triangle	Destination	5	0	0	0	0.0	0
93	Hunstanton Golf Club	Destination	80	245	191	436	36.3	45
94	Sea Lane Beach CP	Destination	145	280	68	348	29.0	20
95	Le Strange Arms Hotel	Destination	50	114	175	289	24.1	48
96	Hunstanton Pitch & Putt	Destination	80	6	0	6	0.5	1
97	Hunstanton Cliff top CP	Destination	1100	819	164	983	81.9	7
98	Hunstanton Cliff Parade 1	Destination	60	185	135	320	26.7	44
99	Hunstanton Cliff Parade 2	Destination	29	95	64	159	13.3	46
100	Hunstanton Cliff Parade 3	Destination	34	127	111	238	19.8	58

Table 13: Combined vehicle totals (from Table 12) and comparison against the standards for the three key zones. Red values (underlined) indicate standards that are exceeded, and blue values (italicised) indicate where standards are not met. Note that 5 vehicle count transects were carried out in 2022 and 7 in 2025.

	Wildlife Tourism	Wild Places	Destination
Approx. capacity	160	758	1586
Total vehicles in 2022	215	772	1871
Total vehicles in 2025	388	783	908
Total vehicles both years	603	1555	2779
Mean no. vehicles per transect	50.3	129.6	231.6
Length of shoreline in km	0.7	5	3.4
Estimate of vehicles per km	***71.8***	**25.9**	***68.1***
Target vehicles per km	75-100	0-15	75-100
% occupancy	**31.4**	***17.1***	***14.6***
Target % occupancy	0-15	45+	15-45

Birds and habitat condition

5.42 The number of breeding pairs and fledging success for the three relevant species of beach nesting birds at Holme are shown in Figure 8. It can be seen that the number of breeding pairs is relatively low, with the complete absence of nesting Little Terns in 2024 a particular concern. No Oystercatcher chicks fledged in either 2023 or 2024. The standards for Wild Places (i.e. the main zone at Holme) are that most suitable habitat is occupied, and a medium proportion of birds breed successfully. For Destination Sites (the beach areas towards Hunstanton) the expectation is that some suitable habitat is occupied, and a medium proportion of birds are successful. It would appear that these standards are therefore not being met. The site's beach nesting birds are all national conservation priorities and declining rapidly across the country.

5.43 Numbers of wintering waterbirds, extracted from the Wetland Bird Survey ('WeBS') and provided by NWT are summarised for the 2023/24 winter in Figure 9. Numbers fluctuated, with high counts of waders in September perhaps coinciding with high tides (potentially pushing birds out from The Wash). Numbers of birds were notably low for November and December, with Knot numbers low throughout, given the context that Holme has in the past had counts well over 100,000. The standards for Wild Places set a target that wader and wildfowl roosts should be present and regularly used, often with high numbers of birds. For Destination Sites roosts are expected to occur in remoter areas only. It could therefore perhaps be argued that the

standards are being met, however there are some concerns around the numbers of roosting birds and the frequency with which the roost is used.

Figure 8: Numbers of pairs and numbers of chicks fledged by beach nesting birds at Holme 2022-2024. Data provided by the NWT.

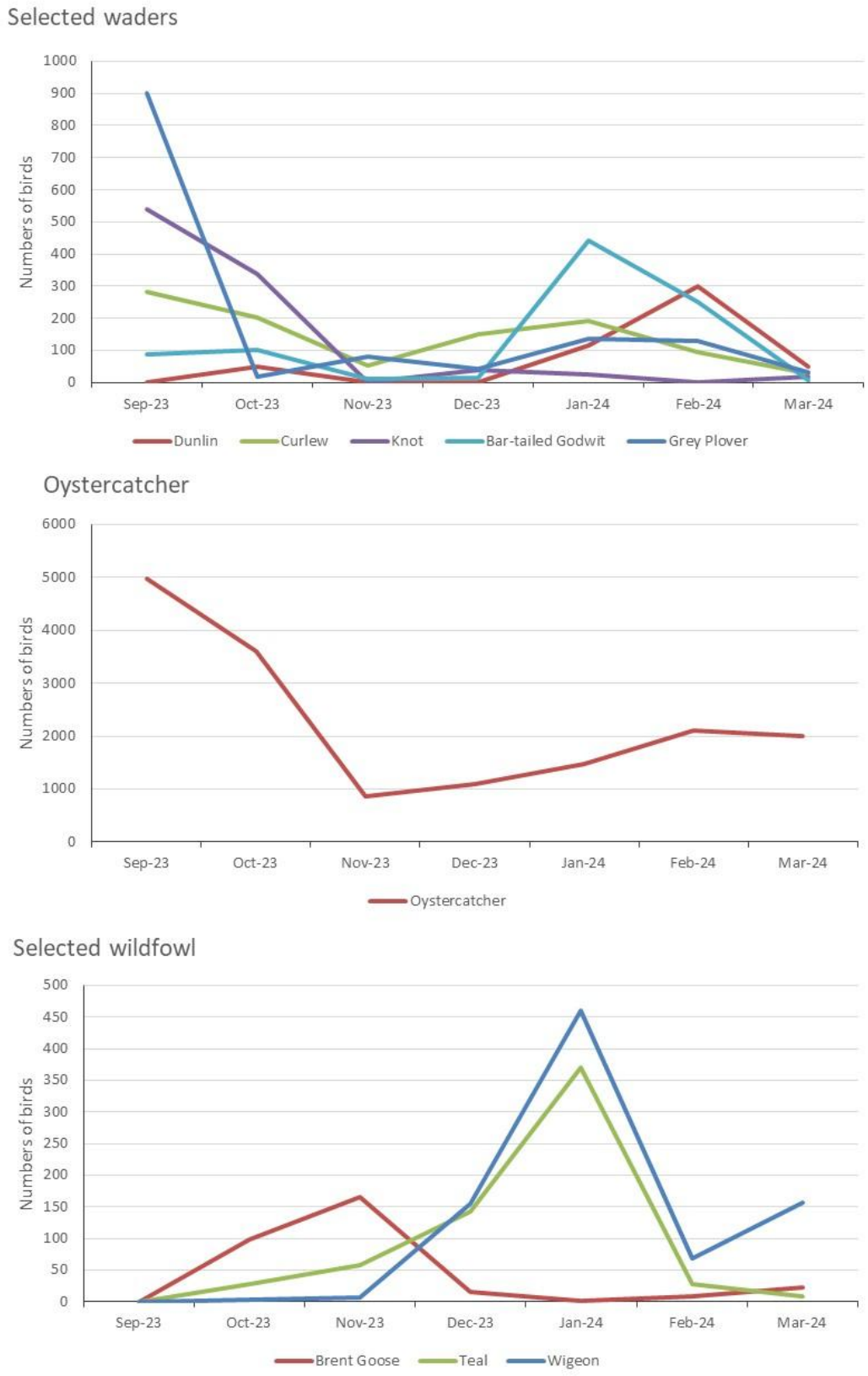


Figure 9: Numbers of selected wintering waterbirds, from Wetland Bird Survey Counts ('WeBS') at Holme. Data provided by NWT. Note the different y axis scale in each plot. Counts are undertaken at high tide.

5.44 The standards also set targets for habitat condition, drawing on SSSI condition assessments. Where present and part of the designated site interest, there should be no loss or deterioration of the following habitats due to access: saltmarsh, vegetated shingle or fore dune habitats.

5.45 SSSI condition assessments are provided on the Natural England website[7]. Unit 1 of the North Norfolk Coast SSSI (Unit 1 being the foredunes at Holme and relating to the end of Beach Road) was last assessed as 'unfavourable – no change', on 27th March 2025. Very little embryo and young dune development was identified in the unit and Sea Buckthorn was recorded as extensive. Recreational pressure and erosion were recorded as pressures. Aerial imagery (see Figure 10) shows a marked loss of foredune habitat where the path from the Beach Road reaches the open beach.

5.46 Unit 5, near the Firs, is where the where embryo and mobile dunes transition to fixed dune grassland before grading into saltmarsh. This unit was also assessed in 2025 as being 'unfavourable - no change', with recreational disturbance recorded as a likely pressure.

7 https://designatedsites.naturalengland.org.uk/SiteUnitList.aspx?SiteCode=S1001342&SiteName=holme&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=

Figure 10: Aerial imagery of the dunes at Holme, where the path from the Beach Road car park reaches the beach. Note loss of foredune habitats where path meets the beach. Image © Channel Coast Observatory (CCO) https://coastalmonitoring.org/

Implications for visitor management in the Holme area

5.47 The application of the LAC approach and standards to the Holme area would suggest that the breeding success of beach nesting birds and the condition of the beach habitat are not meeting targets. They also show there are potentially too many people visiting the Holme Dunes NNR area and too many parking spaces available. Mapped as Wild Places, this area should not be widely promoted as a recreation destination, with limited facilities available, and an anticipation that it is relatively quiet in terms of both visitors and their dogs. In not meeting the standards, interventions are therefore warranted.

5.48 The standards also suggest scope for both Titchwell Marsh RSPB Reserve (mapped as Wildlife Tourism) and Hunstanton (mapped as Destination Sites), which flank the NNR, to accommodate more people (i.e. these areas are not as busy as might be expected, with interventions also required). It is also clear that there is a lack of Local Greenspace in the general area and as such limited opportunities for recreation for local residents away from the coast. A growing local population (e.g. from new housing in Hunstanton) will exacerbate the pressure on the coast.

5.49 These broad findings highlight the importance of applying a strategic approach, with scope for the LAC framework to place sites in context, incorporating adjacent areas as well as the focal area.

5.50 In terms of effecting change, a long-term approach to recreation management within the Holme NNR area, would be to reduce emphasis/promotion of the area as a destination for recreation. This has already been enacted by the NWT in its promotional approach to nature reserves and would therefore be reliant upon other promotional routes/actors being encouraged to act in a similar way.

5.51 Such action would be undertaken alongside a reduction in parking capacity and a review of the access infrastructure within the area mapped as Wild Places. There is simultaneous scope to promote access to Titchwell Marsh RSPB Reserve (as a destination for those tourists travelling to see wildlife) and Hunstanton (as a destination for those travelling to the coast for the beaches and places to walk the dog). There is nevertheless recognition that, whilst the NWT are able to consider their own parking provision, some other car parks located within the relevant zone are managed as businesses and effecting a reduction in the number of parking spaces available within them may therefore prove harder to achieve.

5.52 Ultimately, it should be obvious to any visitors heading eastwards along the beach/open coast, from the Hunstanton/Old Hunstanton area, that they are moving from a Destination Site (with a focus on tourism) into a wilder, more remote, area where access is limited due to topography and terrain. This should also be the case for people accessing the coast north along the path from the Drove Orchard commercial area. In addition, there would be benefit in creating more space for recreation, potentially inland or away from the coast that could provide for local residents. Potential measures that might help achieve these changes are summarised by zone type in the previous Phase 1 report (in Section 10 and Appendix 5).

5.53 These measures should engender a clear distinction for visitors and local people as to where to go, redistributing access so that the Holme NNR area becomes harder to access, more remote, and less visited. This will be particularly beneficial for the Holme Beach area, which is currently exempt from the NWT permit system active elsewhere within the NNR (see paragraph 5.3). Dog walkers will have a clear choice, with plenty of places where they can walk their pet with dogs able to run free without a risk of disturbance, alongside clear guidance and requirements in those areas

important for nature conservation. Visitors to the NNR will be made aware that they are in an area that is not a tourist beach and where there is not a focus upon access provision. The NWT cannot achieve these changes in isolation however, and adjoining landowners, organisations and local businesses will need to work with them towards a shared vision.

5.54 It is also important to recognise that the need for change and the shifts outlined above are not unique to Holme. Other parts of the North Norfolk Coast have been proactive in changing visitor behaviour, influencing where people go, and ensuring strict protection for the vulnerable wildlife present. Many of those visiting the area will be familiar with the changes elsewhere, such as the beach cordons at Snettisham and areas where dogs are required to be on leads at Holkham. This should mean such measures become more accepted. The strength of the LAC approach is that it also ensures that there are areas – Local Greenspace, Town and Village, Destination Sites and Wildlife Tourism - where visitors are particularly welcomed and relevant facilities are provided.

Lessons learnt from the Holme case study

5.55 The Holme case study provides a test of the LAC approach and the application of standards. Here we consider any implications for the overall LAC approach and highlight the following:

- The original standards detailed in the 2022 report were drawn from just 5 vehicle/people counts (March to May) and as such using data from other times of year may be problematic. For example, in high summer many locations will exceed the standards used. Conversely, data suggest that Hunstanton is not functioning as a Destination Site, with underused parking, although the counts upon which the relevant standard was set were only undertaken in the winter and spring, rather than the high summer. Standards may therefore also need to be season specific.
- It was difficult to derive numeric standards for the 6 zones in 2022 and to identify suitable values that might work across the coast. Further data, checks and tests from additional areas of the coast would therefore continue to prove useful.
- It was also difficult to apply the standards to Holme, as this involved drawing upon data collected in 2022 and 2025 from locations that did not easily allign with a particular zone. Simplifying the standards to fewer metrics would therefore be beneficial and make the approach much more straightforward.

- Where data for the standards are collected at locations that involve multiple zones (for example the vantage point at the end of Beach Road at Holme, which relates to Wild Places, Destination Sites, and Local Greenspace), counts should ideally be split by zone.
- The vantage point data varied markedly according to tide, with the number of people on intertidal habitats varying greatly depending on tide state. This variation means a small number of counts may not give sufficient data resolution and adds to the complexity. Simplifying the number of metrics and standards applied may again be more straightforward.
- Inevitably with many standards, some will be exceeded and others not, which may make it hard to decide on a particular course of action or need for intervention. Reducing the number of standards and simplifying them would resolve this issue.
- Counts of vehicles and people both indicate similar data, in terms of overall levels of recreation use. Counts of vehicles may therefore be simpler and easier to focus on.

6. Recommendations

6.1 Drawing on the earlier sections of this report, there are some broad recommendations relating to the how the LAC approach is applied, as well as some specific recommendations from the Holme case study.

General recommendations on the application of the LAC approach

6.2 Some time has passed since the original Phase 1 work carried out in 2022 and a review is therefore entirely appropriate. The establishment of oversight of the LAC approach is a key step, as it is important that there is consensus and shared responsibility for the zones as mapped, and fairness in how the approach is applied. Its effectiveness will rely upon effective partnership working around the coast, and any changes/updates should be made in a transparent way. Furthermore, and critically, it is necessary for the zoning approach and standards to be adopted by a range of organisations, ranging from strategic planning authorities to organisations, land owners etc. responsible for individual sites. The National Landscape team potentially have a key role in ensuring the approach is widely adopted and implemented.

6.3 A number of suggested revisions to the Phase 1 LAC zone boundaries were made during the March 2025 workshop, and these have been incorporated within the maps included within this report. It is however recommended that these potential alterations are shared more widely with relevant stakeholders for sign off prior to adoption, as the individuals present at the workshop comprised only a small proportion of those who took part in the zoning exercise during Phase 1.

6.4 The standards established in the Phase 1 report could be reduced in number to provide a simpler set of metrics that are easier to gather and apply. The aim should be to have a small, focussed, set of metrics that potentially work like key performance indicators ('KPIs') that are widely used to evaluate how well a company or individual is achieving specific goals (as highlighted by one of the participants in the workshop).

6.5 The initially established standards, as set out in the Phase 1 report, cover vehicles, numbers of people on the beach/intertidal, numbers of dogs off-lead on the beach/intertidal, numbers of boats, habitat condition, bird

breeding success, and bird numbers. It could be that these are reduced just to one standard, relating to vehicles, which comprises the simplest and quickest data to collect. The other metrics could be retained and used as part of a range of secondary data that site managers and others might draw on to help inform interventions. For example, if the vehicle count data shows standards are not being met or are close to failing then there is a need to better understand the issues on the ground and locally.

6.6 If the standards were to be reduced to just the vehicle counts, then the standard could potentially be refined further with more data (e.g. more counts across the year) to ensure it is robust and give scope to adjust the standards seasonally. There is also the potential for particular targets to be assigned to individual car parks and parking locations around the coast, based on the zone or zones that they link to and the number of other parking locations nearby. These numbers could be adjusted to reflect how people spread from each car park (i.e. the proportion of visitors that tend to go onto the intertidal or beach habitats).

6.7 This approach could then lead to a more nuanced and tailored approach, with a simple monitoring regime of regular vehicle counts then established on a coast-wide basis.

6.8 A subset of preferred management actions has been identified by those stakeholders present at the March 2025 workshop, comprising those that the site managers present felt were most effective and achievable. Nevertheless, the full range of management actions available to site managers, identified during Phase 1, are also presented within the Appendix for completeness.

Holme case study

6.9 The application of the LAC approach to Holme shows that interventions at the NNR are warranted as some standards are currently exceeded. Given the endorsement of the LAC on a coast-wide basis, this should provide the confidence necessary to implement change. The aim should be to reduce the number of people using the Holme NNR area while aiming to deflect visitors towards Hunstanton and Titchwell Marsh RSPB Reserve.

6.10 Specific recommendations that could be undertaken include:

- A review of parking provision at the Firs and at Beach Road, while increasing parking provision in the Hunstanton area, such that it is

easy, relatively cheap, and straightforward to park in the Hunstanton area and the opposite at Beach Road or the Firs. This could be carried out alongside promotion/expansion of the existing Coasthopper and Coastliner bus services to encourage sustainable travel to the same locales. It is recommended that NWT undertake the review at the Firs and the Le Strange Estate carry out the review at Beach Road;

- Promotion and welcoming of dogs in the Hunstanton area, including the potential revision of the period when dogs are allowed on the beach[8] in the town. The beach area in front of Old Hunstanton could also be promoted as an area where dogs can run off-lead, via social media, dog walking websites, accommodation providers, etc. Such actions would need to be implemented by a range of organisations including Hunstanton Town Clouncil, with support from the National Landscape team.
- Raising awareness of the vulnerabilities around the Holme area, with a focus on the fore dune habitats, areas used by beach nesting birds, and roost sites. Visiting these areas would be discouraged, with the areas protected, and clear guidance provided to visitors on how to behave (potentially involving a requirement for dogs on-lead, cordons, and ranger presence), with these steps also helping to deflect visitors. This cannot be achieved by the NWT in isolation and would need the Town Council, local landowners, the golf club, the National Landscape team to work together. Signage, interpretation, social media and amendments to text on websites around where to walk with dogs are all required.
- In line with the above, focussing access along the path through the dunes (the England Coast Path), rather than on the beach or intertidal habitats, for those heading east from Old Hunstanton. This could include the promotion of a circular route returning to Old Hunstanton on the inland path that runs along the edge of the golf course. Enhancing this route could make it work for visitors and become a viable alternative to the beach.
- Promoting Titchwell Marsh RSPB Reserve as the local destination for those wanting to experience a wildlife spectacle, and to tourists wanting to see wildlife, through the use of brown signs on the coast road, social media, websites, etc.
- Identifying areas and finding funding to create new greenspaces for local people to use for dog walking and recreation, ideally

[8] Dogs are currently not allowed on the beach between the Power Boat Ramp and the northern extremity of the promenade from 10th April to 31st October inclusive.

creating a dedicated area for dog walking in the vicinity of Hunstanton (potentially as a new country park or similar).

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Appendix: Management actions (with minor updates to that in Phase I report)

The table below (repeated from the Phase 1 report, with minor updates) lists a range of different management actions that could be relevant to managing access at specific sites within the different zones. The table identifies measures that are seasonal (i.e. could be deployed for a particular time window) and also highlights which might be appropriate to reduce impacts for beach-nesting birds, wintering waterbirds, seals or habitat damage (the key themes) and which measures are relevant to which types of zone. For the themes and zones, pale red shading with a single tick (✓) indicates measures that have some relevance while dark red shading and double ticks ✓✓ indicates those measures particularly appropriate. Detailed design will obviously be site dependent.

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Access infrastructure														
Boardwalk and improved path infrastructure	Ability to focus use along key routes and contain people on paths		✓	✓	✓	✓✓			✓	✓			Evidence to show resurfacing paths reduces spread of people. Likely to be most effective in dune or shingle habitats where walking harder	Pearce-Higgins & Yalden (1997)
Dedicated fenced areas for dogs off lead	Dedicated areas where dogs can be let safely off lead. Can be large enclosures or small areas mores suitable for training etc.	✓	✓	✓	✓	✓	✓✓	✓	✓				Potential to facilitate better trained dogs and to provide space where unruly dogs or those that need space to run off lead can't cause harm	
Dedicated viewpoints	Creates destinations within a site, allows visitors to see and view other areas while containing access		✓✓	✓✓	✓✓	✓	✓	✓✓	✓✓	✓✓				
Dog bins and bags	Clear provision of means to dispose of waste, can be litter bins. Bags etc can be dispensed/provided free too					✓	✓✓	✓✓	✓✓		✓			

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Fences and cordons to restrict access	Areas of fencing to keep people out or away from certain areas	✓	✓✓	✓✓	✓✓	✓✓	✓		✓✓	✓	✓✓		Potential to ensure localised areas that are vulnerable are protected – can include areas of sensitive habitat, areas used by seals, roost sites and nesting habitat or whole stretches of beach	Liley *et al.* (2021); Weston *et al.* (2012)
Good quality interpretation	Provides information to visitors about the conservation interest and importance	✓	✓	✓	✓	✓	✓	✓	✓✓	✓✓			Can be seasonal in that potential for information to be varied through the year. Better informed visitors may respond differently	Maarten & Harms (2014)
Height restriction and gated car parks	Allowing control over size and timing of when car parks used, potential to restrict overnight parking and size of vehicle		✓	✓	✓	✓		✓	✓	✓	✓		Ability to control use by campervans etc and night time use and anti-social behaviour plus associated risks such as contamination and fire	
Hides	Dedicated structures for viewing wildlife and allowing people to see and experience wildlife close up		✓	✓✓	✓✓			✓	✓	✓✓			Wide range of designs possible from simple shelters with open sides to large buildings.	
New/enhanced launching points for watersports	Can provide better parking, ease of access to water and can lead to better control of where people launch from		✓✓	✓✓	✓✓	✓✓	✓		✓				Scope to provide messaging, codes of conduct etc at launch points. Launching managed to direct users and limit damage to habitat and provided in locations where impacts can be addressed	
Picnic facilities and dedicated barbeque areas	Infrastructure to allow people to cook and tables etc to eat at		✓			✓	✓✓	✓✓	✓✓	✓			May help to limit people trying to picnic or barbeques in sensitive locations	
Provision of dog facilities (e.g. dog washing)	Facilities to draw dog walkers to particular locations and feel welcomed		✓	✓	✓	✓	✓	✓✓	✓				May help make soften other measures if there are dedicated facilities and places for dog walkers	
Screens	wooden or reed structures to create visible barrier between people and wildlife, can have slots for viewing out		✓	✓✓	✓				✓	✓✓	✓			

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Signage to influence behaviour	Signs can be temporary or permanent and targeted to particular times of year and locations	✓	✓✓	✓✓	✓✓	✓✓	✓		✓	✓	✓		Careful consideration necessary with regard to design, messaging and placement to ensure effectiveness	Mederios *et al.* (2007); Allbrook & Quinn (2020); Acevedo-Gutierrez *et al.* (2011); Ham *et al.* (2009)
Toilet provision	Provision of toilet facilities	✓				✓	✓✓	✓	✓✓	✓			May help to draw visitors to particular locations. May also help reduce contamination. Can be seasonal (e.g. portaloos in overflow car parks)	
Unstaffed visitor centre	Low key focal point, with information and shelter, permanently open and unstaffed		✓	✓	✓	✓		✓		✓	✓			
Use of artwork to inspire and draw access	Potential to use sculptures and temporary art to draw visitors, raise awareness and promote sites	✓	✓	✓	✓	✓	✓✓	✓✓	✓✓	✓✓			Can be seasonal or temporary to attract visitors at particular times of year or to particular locations. Artwork can convey particular messages (e.g. importance for birds)	
Outdoor play structures	Infrastructure to draw visitors to particular locations		✓	✓	✓	✓	✓✓	✓✓	✓✓	✓			Can have nature theme and would be targeted to draw families to particular locations. Could work to provide space for children to play as an alternative to more sensitive locations	
Directing access														
Augmented reality and self-guiding via apps	Interactive content provided through dedicated apps, scope to target messaging to particular locations, parts of site, activities etc.	✓	✓	✓	✓	✓			✓✓	✓✓	✓		Content can be varied through the year	

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Wayfinding/directional signs	Prevents people getting lost and can allow use to be focussed along particular routes		✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓		Likely to work best if shared on maps, promoted and suitable infrastructure (path surfacing etc) provided on route.	
Maps for wayfinding	Clear maps on interpretation boards and online to facilitate people finding their way		✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓			Potential for more strategic implementation across sites. Maps should indicate areas where access restricted and direct visitors where they can go without causing damage	
Promotion of sites and routes through internet, social media, gazeteers and events	Potential to raise profile of sites and promote their use	✓	✓	✓	✓	✓	✓	✓	✓	✓			Can be varied seasonally or highlight sites to visit at particular times of year	
Engagement and information provision														
Codes of conduct	Promoted on leaflets, internet, signs and targeted to different activities	✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓	✓✓	✓✓	Potential for wildlife only areas to be clearly mapped. Codes can have seasonal component and also be tailored or targeted to particular activities and issues. Important that there is clear messaging as to how visitors should behave	
Direct engagement with user groups, activity providers and those posting/hosting online	Direct liaison with certain groups to provide messaging, support and influence where they go and behaviour		✓	✓✓	✓✓	✓	✓	✓✓	✓✓	✓	✓✓	✓	Could target foragers, watersports, dog walking, tourist providers, sailing clubs etc. Relevant to wildlife only with respect to permitted activities	
Engagement and information provision														
Engagement through social media and internet	Potential to reach wider and more diverse audience and influence travel patterns, behaviour etc.	✓	✓	✓	✓	✓	✓✓		✓✓	✓		✓	Potential for remote cameras etc in wildlife only areas to show people wildlife remotely	

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Face to face visitor engagement	Rangers/wardens with engagement role – able to show people wildlife, explain issues, influence behaviour etc.	✓	✓✓	✓✓	✓✓	✓✓			✓✓	✓	✓✓		May be less relevant in wild places if visitor numbers very low. Can be targeted to locations and times of year where issues occur	Saunders & Liley (2022); Mederios *et al.* (2007);
Staffed visitor centres	Focal point/destinations that provide information, education, resources and interpretation		✓✓	✓✓	✓✓	✓✓			✓✓	✓✓			Can influence where people go, what they do and how they behave as well as raise awareness	
Volunteer ambassadors	Members of local community providing positive examples and engagement		✓✓	✓✓	✓✓	✓	✓	✓	✓	✓✓				
New GI														
Creation of new greenspaces and routes to enhance access	Suitable Alternative Natural Greenspace (SANGS) and other spaces to provide additional space for recreation. Could include enhancement to footpath networks and linear routes		✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓	✓			Spaces could be targeted to draw access from other locations and provide for activities such as dog walking. This is essentially creating new areas of Local Greenspace	Allinson (2018); Natural England – anon (2021)
Parking														
Advance booking and parking permits	Permits (e.g. residents only) or advance booking system for parking, meaning numbers limited	✓	✓	✓	✓	✓	✓		✓	✓	✓✓		Availability and overall capacity can be varied through the year as necessary	
Car park charging	Use of charging to influence car park use (e.g. through duration, cost etc). Instigation of charging (even voluntary) may help convey messages that site is looked after and important	✓	✓	✓	✓	✓	✓	✓	✓	✓			Some evidence that locations that charge have more visitors	Weitowitz *et al.*
Enhanced car parking facilities	Increased number of spaces and ease of parking to accommodate high visitor numbers						✓	✓	✓				Could include temporary parking, overflow parking, new car parks and expansion of existing parking. Potential benefits in terms of addressing impacts through diverting people to more robust locations	

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
Live parking app or information on web	Allows visitors to identify where there is parking available (live)	✓							✓✓	✓✓			Potential benefits in terms of addressing impacts through diverting people to more robust locations	
Live signage to indicate parking capacity	Allows visitors to identify where there is parking	✓							✓✓	✓✓			Potential benefits in terms of addressing impacts through diverting people to more robust locations	
Physical restrictions for vehicles off highways	Restrict vehicular access at end of highway and parking on verges etc through use of dragons teeth, gates, ditches, double lines etc.		✓	✓	✓	✓			✓	✓	✓✓	✓✓		
Provision of electric vehicle charging	Promotes sustainable transport choices and could draw visitors to particular locations						✓	✓	✓	✓			Potential benefits in terms of addressing impacts through diverting people to more robust locations	
Restrictions/enforcement														
Permits for particular activities	Certain activities only allowed where permits in place	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Permits can easy to obtain but can ensure users comply with code of conduct etc.	
Signage to indicate access restricted		✓	✓✓	✓✓	✓✓	✓✓	✓	✓	✓	✓	✓✓	✓✓	Can be temporary or permanent	
Ticket entry/capped permit system	Purchased in advance or on-entry with potential to limit numbers	✓	✓	✓	✓	✓				✓	✓		Could allow for guided walks and events in low key way in wild places and number of permits can be varied seasonally	
Wardening with enforcement role	site presence to enforce byelaws, gather evidence, liaise with police etc.	✓	✓✓	✓	✓✓	✓					✓✓	✓✓	Can be targeted to particular times of year, issues or locations. Potential to be boat based or terrestrial	Greer *et al.* (2017)
Zoning	Dedicated zones where restrictions on particular types of access (watersports, horses, dogs)	✓	✓✓	✓✓	✓✓	✓✓	✓✓		✓✓	✓✓	✓		Zones can change with time, potentially even seasonally	
Travel related														
Bike hire	Cycle hire, with options to incentivise or subsidise to reduce car use	✓	✓	✓	✓	✓	✓✓		✓✓	✓✓			Potential for hire to include range of bikes (e.g. ebikes, mountain bikes etc),	

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
													equipment (trailers, panniers) and help visitors with route choice. Can be pop up or seasonal. Potential benefits in terms of addressing impacts through diverting people to more robust locations and influencing where people cycle	
Bike washing facilities	Dedicated provision to allow cyclists to clean their bikes and kit								✓				Likely to be used only by mountain bikers and best provided alongside other mountain bike facilities. Potential benefits in terms of addressing impacts through diverting people to more robust locations	
Boat drop off and pick-up (water taxi)	Potential to provide and control access to remote locations	✓	✓	✓	✓	✓			✓✓	✓✓	✓		Boats take visitors to Blakeney and Scolt Head at moment, use and drop-offs provide a means to control access and could be extended to other areas	
Dedicated cycle and riding routes	Allows people to reduce car use and keeps cycles, horses etc to set, promoted routes		✓	✓	✓	✓	✓✓	✓✓	✓✓	✓			Can have dedicated cycle routes to access sites and dedicated areas/ routes within sites	
Enhanced bus routes	Potential to disperse access away from car parks		✓	✓	✓	✓	✓✓	✓	✓✓	✓✓			Requires strategic implementation, could provide potential for better engagement and communication with visitors while on the bus too	
Park and ride bus system	Allows people to park and access areas by bus with potential for drop off and pick up in different areas	✓	✓	✓	✓	✓	✓	✓	✓	✓			Can be seasonal and potential to direct and influence access	
Catering														
Café and associated facilities							✓✓	✓	✓✓	✓✓			Potential benefits in terms of addressing impacts through diverting people to more robust locations. Can provide means to communicate nature positive messages	

Management action	Description	Seasonal	Beach-nesting birds	Wintering waterbirds	Seals	Habitat	Town and Village	Local Greenspace	Destination Sites	Wildlife Tourism	Wild Places	Wildlife Only	Notes	Reference
													around food and opportunities for engagement	
Mobile catering facilities	Ability to respond to high demand and to draw visitors (e.g. if regular on particular days)	✓					✓✓	✓	✓✓				Potential benefits in terms of addressing impacts through diverting people to more robust locations. Can provide means to communicate nature positive messages around food and opportunities for engagement	
Other														
Nest cages	Metal cages over individual nests that protect nest from predators, trampling etc.	✓	✓✓				✓		✓	✓	✓		Can be used anywhere where beach nesting birds such as Ringed Plover present, and beneficial to reduce predation even if low footfall. Note these should be deployed with caution, carefully monitored and selectively targeted as they can serve to draw predators.	Liley (2022)