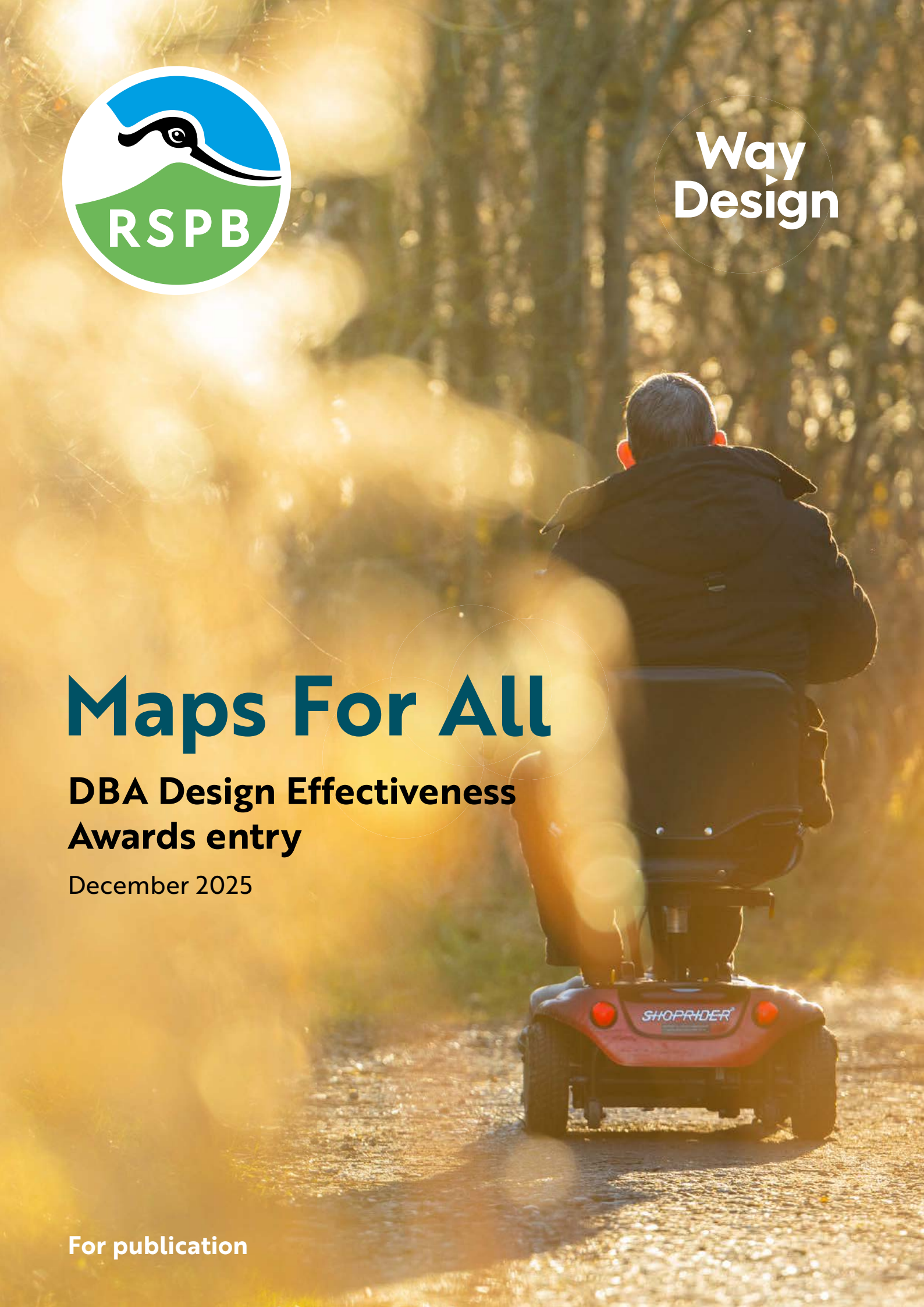


Maps For All

DBA Design Effectiveness Awards entry

December 2025

For publication

Executive summary

The RSPB Maps for All project set out to transform how visitors of all ages, backgrounds and abilities experience nature across the UK's 200+ RSPB reserves. The goal was clear: to design a flexible mapping system that helps people feel confident exploring, connects them with nature, and reflects the RSPB's commitment to accessibility and inclusion.

Research revealed that outdated maps were a common cause of visitor complaints – from poor legibility and orientation to inaccessible routes and missing facilities. Many visitors didn't understand the habitats they were seeing and families or people with mobility needs often felt overlooked.

In response, the design solution included three integrated map types (General, Access and Family), all delivered through accessible formats (tear-off, digital, and on site signage), supported by a comprehensive toolkit to guide the national roll out.

This collaborative project involved multiple departments across the organisation, from UX to EDI to Health & Safety, and was shaped by extensive user research and testing. Design led the way in defining the wider visitor experience and signage strategies.

Despite a limited rollout period at the time of submission, early results already show strong impact:

- **+10% increase** in 5/5 visitor ratings for ease of wayfinding
- **+4.5% increase** in membership at Old Moor post-map launch
- **100% reduction** in complaints about map legibility
- Positive feedback from VAQAS, national quality assessors, and front-line volunteers.

The new mapping system directly delivers on all four original objectives: it is audience-focused, accessible, effective in deepening connections to nature, and flexible, important and relevant for the organisation. Through strategic and inclusive design, this project has reshaped how people navigate, understand and enjoy RSPB reserves across the UK.

"One reaction by visitors has really stood out for me; every time I've given out an access map, the visitor's face has lit up and they've commented on the slope gradient and length information. I've had lots of people say they really appreciate it and they've not seen any other attractions provide this information."

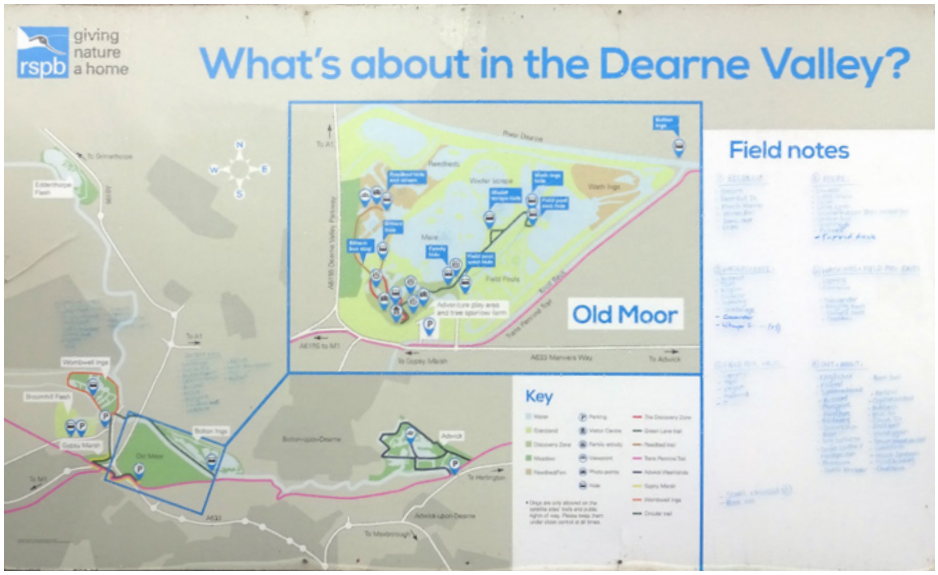
– **Welcome Volunteer** at Old Moor

Context and overview

Project background

The RSPB's mission is to conserve nature and connect people with the natural world. Its Visitor Operations Vision set out an ambition to become the UK's market leader in nature experiences – requiring consistent, high-quality visitor orientation across all 200+ nature reserves. Following the launch of a refreshed brand in late 2022, the RSPB sought to redesign its reserve mapping system to support that aim and align with a new signage strategy.

Previously, reserves had a single site map which was occasionally outdated, unclear or inconsistent, with no separate access or family version. These maps lacked the flexibility and information to meet the diverse needs of today's visitors. The RSPB brief called for a new mapping system that would be audience-focused, inclusive, brand-consistent and adaptable – both online and on site – to encourage confident exploration and connection to nature.



Original arrival map at Old Moor: Missing the You Are Here, orientated north rather than heads-up, icons obscure detail and lacking information.

Challenges

RSPB uses site maps to help guide visitors safely through their reserves. Maps were available pre-visit on reserve web pages, at visitor orientation points on site (staffed or not) and handed out as paper maps at the welcome point.

Previously, reserves had just one simple site map – with access information given separately online. There was no separate access map or family map with relevant information.

Wayfinding, accessibility and legibility

RSPB visitor maps, before the redesign, were mentioned in complaints about wayfinding, orientation and accessibility. For example, complaints regarding the lack of context of topography on the original maps, especially on hillier sites. Sometimes the steepness or length of a slope was not as expected and negatively affected a visitor's experience of the site.

Some sites had trails that were waymarked using red and, when on a background of green on the maps, were not clear for those with red/green colour blindness.

These were a common topic of complaints and feedback, along with legibility of icons, understanding of distances and where the next bench was going to be.

Managing visitor behaviour

Site teams fed back that the map designs could better help them to manage visitor behaviour. For example, some sites had issues with visitors doing pond dipping in the wrong places. This can be an ecological risk, with the potential for risks such as disturbance of protected species or the spread of invasive plants. A clearer map with locations of appropriate pond dipping platforms would support them.

In addition, the site map often only showed the suggested routes and not all paths on site. This could often cause confusion for visitors on the ground who would be following one route but find they'd turned off and were in the wrong place as there was a footpath that was not on their map.

Inflexibility of design

The inflexibility of the design of the original maps added to confusion and clunky experiences in some locations. For example, with all maps designed and applied facing north, sometimes the real-life orientation within the visitor centre, made using the north facing map unintuitive. At another site, whenever staff gave out maps to visitors, they always told them to turn it up side down to make it make sense!

With significant proportions of the UK population stating that they can't read a map (27% say they have not been taught and 14% say they still don't know how*), adding extra clunkiness to the experience, such as in this circumstance, further hinders orientation and wayfinding.

The existing map designs had a one-size-fits-all approach too, which tried to be everything for all audiences at once.

Historically, maps had been rolled out when needed by the in house design team whose remit was vast and busy. It had been many years since the style had been developed.

Inspiring connections to nature

The RSPB believes that nature is for everyone. It aims to inspire visitors to connect with nature and in turn act for it. Everyone should feel welcome and able to enjoy the beauty of the natural world.

Inclusivity and accessibility was placed at the heart of this project to redesign RSPB maps. The project aimed to factually describe the terrain, potential barriers to access (for example steps) and facilities, so that visitors can make their own judgements on what is suitable for them, with as much information as possible, in the easiest way.

** Statistics taken from www.ordnancesurvey.co.uk/news/have-we-all-lost-our-sense-of-direction*

Map project objectives:

1 Audience-focused

2 Accessible and inclusive

3 Connect more people to nature

4 Flexible and efficient

Traditionally, nature reserves haven't always been a place where families and children have felt welcomed. The RSPB tries to break down those barriers, and ensure nature is inclusive for everyone. The original map design didn't always make it obvious that there was a family offer to get closer to nature on some sites.

It was sometimes difficult for visitors to understand the rare and complex habitats that the RSPB protects by using the previous maps. They used solid blocks of colour for habitat types which left visitors who were not familiar with habitats, such as reedbeds or saltmarsh, unsure of what to expect. This created confusion which led to complaints to reserve staff. A more literal representation was needed, but one which was easy to understand and indicative – but not so far as being complex and exclusionary.

Project objectives

The new, redesigned visitor-friendly reserve maps should be:

1. Audience-focused

Help our diverse visitors to choose experiences that connect them to nature, meeting their motivations.

Measured by increased audience satisfaction and confidence, repeat visits and a reduction in staff/volunteer support needed.

2. Accessible and inclusive

Give all visitors confidence to explore our sites safely and within their abilities, without fear of getting stuck or lost.

Measured through testing during development, user feedback and Quality Assurance Scheme.

3. Connect more people to nature

Better experiences make repeat visitors who become advocates for nature and the RSPB – increasing visitor numbers, membership and positive behaviour on site.

4. Flexible and efficient

Developed in line with the new brand and organisational strategy, the maps should be flexible to work best for visitors and site and internal teams, easy to update, quicker to implement and adapt internally.

The pilot sites

Site teams were an integral part of a wide working group from the outset.

Five pilot sites across the four nations of the UK were chosen to develop, test and implement the first iterations of the reserve maps.

These were:

- Old Moor, England
- Conwy, Wales
- Loch Leven, Scotland
- Bempton Cliffs, England and
- Rathlin Island, Northern Ireland (not yet live at time of submission).

These sites were vital to developing the design solution and were engaged throughout the project, ensuring outcomes were suited to each nation – whether bilingual or in line with the Scottish Outdoor Access Code for example.

This ensured that nuances and direct experience of sites and their visitors around the UK would inform the map design solution and consequent visitor experience.

The working group

This was a large, collaborative project managed by a core head office team (Brand, Visitor Experience, Project Management) and The Way Design. Key departments including Web, UX, Health & Safety and EDI were consulted at every stage.

Experts from site teams and strategic leads gave vital input, and final designs were approved by the Senior Leadership Team. UX and EDI colleagues supported research and testing, ensuring accessibility and inclusivity remained central to the design.

Launch date

Although all the maps for the pilot sites were complete in early 2024, their launch was dictated by the reserves signage project (the physical manifestation of the maps and new brand on site). This was a separate national project which The Way Design was also commissioned to undertake, which saw new visitor signage and wayfinding going in at the pilot sites with a view to national roll out. The site maps were a key element to the visitor experience and so were implemented online and on site simultaneously with installation.

The pilot sites who have to date implemented their new maps are:

- RSPB Old Moor, March 2024
- Bempton Cliffs, March 2025
- Conwy, April 2025
- Loch Leven in May 2025.

Design fees

The project was split into phases:

- Phase 1 (late 2022 to March 2024): Research, testing, design, development and supply of pilot sites and toolkit, [redacted].
- Phase 2 (2024+): Roll out across reserve network as and when needed in line with signage project. To [redacted].

Market context and project brief

Visitor demographics

RSPB welcomes over 1.5 million visitors annually – from highly engaged birders to families seeking fresh air, and newcomers visiting for wellbeing or leisure. Most map users are first-time visitors, and can struggle with traditional navigation. Nearly a third of UK adults say they can't read maps confidently (Ordnance Survey, 2022). For this audience, orientation tools must be easy, inclusive and confidence-building.

These insights were at the heart of the design solution for reserve maps. But first, we needed to talk to the visitors...

Market research

From the outset, this project put visitors at its heart with the aim of building a mapping system that worked for everyone, regardless of age, ability or familiarity with the reserve. Two key stages of visitor engagement shaped the work: initial audience insight gathering followed by iterative user testing.

The initial visitor surveys focused on what different visitors needed from maps and wayfinding on site: what helped them feel confident, what information supported their motivations, and how they preferred to navigate the site.

Working with RSPB's internal User Experience team, face-to-face sessions were carried out at several reserves (including Old Moor, Bempton and Conwy from the pilot sites plus three other sites with varying visitor offers to get as broad a scope as possible) across different times and days, including midweek during term time and school holiday weekends. This ensured a diverse mix of audiences and motivations were approached, from seasoned birders and returning members to first-time family visitors and people looking for a relaxing day out together.

The team engaged visitors as they arrived at the site, asking open-ended questions and gathering observational insight on how maps were being used – both physically (paper vs. digital) and cognitively (what people sought out or struggled to find). People could respond verbally or on a paper questionnaire if they preferred, helping identify needs without leading the participant.

This research uncovered several recurring insights:

- Visitors needed better orientation tools. Many expected maps to be more available on site and were disoriented when they weren't.

  Accessibility was a key priority across all sessions as visitors wanted information on distances and times, benches, gradients and facilities to help them plan with confidence. From the outset, access guided our whole approach.
- Paper was strongly preferred over mobile due to screen glare and usability, but visitors liked having the option of digital for pre-visit planning.
- Existing icons and colours used caused confusion, with multiple visitors struggling to distinguish between features like hides, screens or other facilities.

"Prefer a paper map as mobile is often unreliable due to signal issues. Sunshine on phones can be difficult to see."

"Access information would be helpful to have. Including seats available and size of hides."

"Didn't include distances so difficult to assess [routes]."

– Comments from paper surveys at Old Moor.

Insights and evidence

Research identified a clear gap in how visitors orientate themselves, understand access, and plan their visit confidently. Existing maps often lacked basic usability. For example, scale was unclear, distances were missing, as were icon explanations in the key, similar colours overlapped and in some cases on site, paper updates were visibly stuck over outdated features.

Many visitors relied on volunteers and staff to help them understand the maps and expressed their frustration with missing accessibility information such as seating locations or step-free routes.

With ALL sites displaying their maps north up, rather than heads up, this was often raised as a frustration at some sites. Particularly for people who were not accustomed to reading maps.

In parallel, digital research showed that visitors wanted maps that could help them visualise the day with clearer trails and wildlife (experience) information.

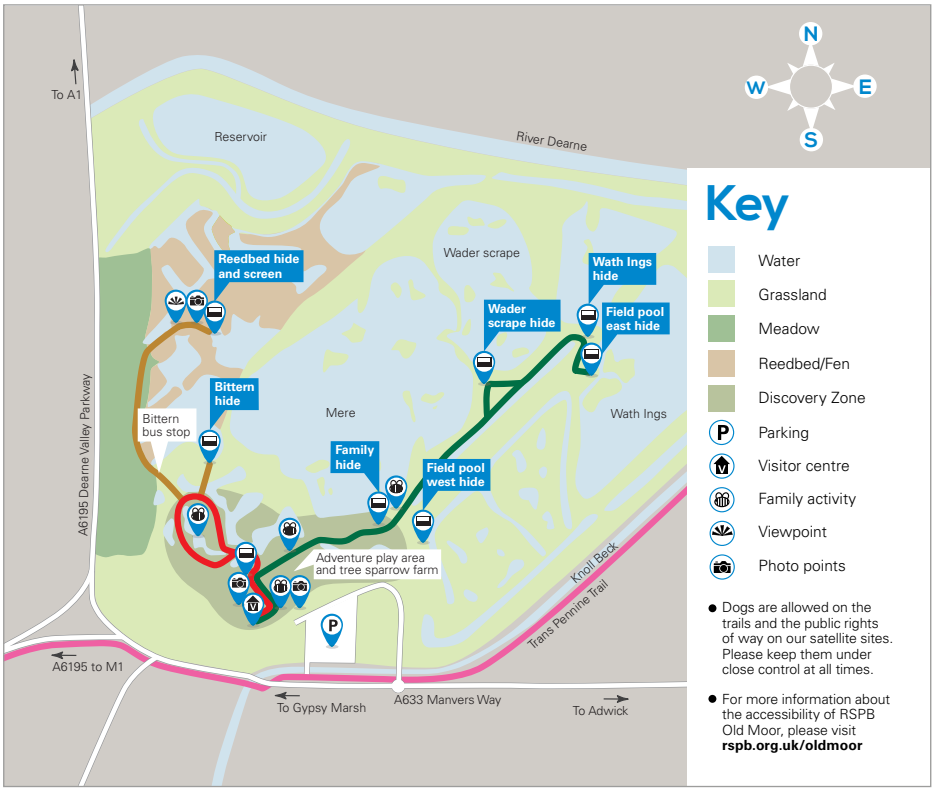
These insights shaped the development of the new suite of maps, prioritising clarity, inclusivity and self-guided confidence. They also laid the foundation for the toolkit that would help future site teams commission and implement maps consistently across the four nations.

Research

At the start of the project, The Way Design and the client working group met on site for a workshop at Old Moor with the site team. This is where we looked at RSPB competitors and explored best practice maps at visitor sites locally, nationally and internationally.

Questioning the site team and experiencing the site and existing map first hand, and as a first time visitor, led to valuable insights and organic conversation which wouldn't have been possible in a virtual meet up.

Theme	Key insights	Visitor type	Importance
Accessibility	Visitors need detailed information about terrain type, gradients, seating, toilets and accessible features and activities to plan routes safely and inclusively.	Visitors with specific mobility, sensory or family needs	Very High
Navigation	Visitors want clear, confidence-boosting trails, especially on first visits, including start points, distances and gradients.	First-time visitors, route planners	High
Facilities and infrastructure	Toilets, cafés, benches and hides/screens (nature activities) need to be clearly marked, especially in terms of accessibility and availability.	All, particularly parents and visitors with access needs	High
Map usability	Many maps were outdated, too small, poorly placed or contained handwritten edits. This impacted visitor trust and usability.	All site users, especially unfamiliar visitors	High
Rules and restrictions	Lack of clarity around rules (e.g. dogs, bikes, out-of-bounds areas) led to confusion and reliance on volunteers/staff for guidance.	Families, access users, dog walkers, cyclists (all)	Medium
Points of interest	Visitors are motivated by engaging features like viewpoints, sculptures and historical landmarks, which were often not clearly mapped or referenced.	All audiences, especially families and new visitors	Medium
Wildlife and nature	People want to know where and what wildlife they might see. Sightings boards are very popular and iconic of RSPB reserve experiences, but not well integrated with maps.	Birders, nature enthusiasts, curious families	Medium
Physical vs. digital use	Paper maps were preferred, but some visitors relied on photos from orientation points due to practicality. A few welcomed digital tools like QR codes linked to the map or pre-visit digital downloads.	General visitors, environmentally conscious users	Medium
Signage	Visitors wanted consistent, clear directional signage that reinforces maps and marries up with the experience on the ground.	New or occasional visitors	Medium



***Before:** Old Moor visitor map*

After: Old Moor's redesigned map set.

Access tear-off map

General tear-off map

Family tear-off map

The design solution

Following the visitor surveys and staff/volunteer insight stages, we refined the outputs to directly respond to the needs identified and aligned them with the RSPB's strategic aim of making nature more accessible, inclusive and engaging for everyone. This included looking at both physical deliverables and the process of embedding the mapping approach through roll out across the reserve estate.

General map

Publicly accessible reserves – from staffed flagship sites to remote, free-entry locations – would have a general map. Generally, they were aimed primarily at first time visitors, but research showed that even confident visitors relied on maps for orientation and that clear start points, distances and key features improved visitor confidence and in turn the experience of their visit.

This also required an expansion of the recently redesigned icon set, designed specifically for maps and access barriers, that was simple and inclusive.(Easily identifiable icons are particularly helpful for those visitors for whom English is a foreign language or those who struggle with reading.) For consistency of experience, these additional icons are now integrated throughout the visitor's journey.

Access map

All the maps give access information, after all that's what maps are for, but more detailed information about barriers on site or facilities, gradients and their length, and a large print option needed space on their own map. Otherwise one map would have been overcrowded and less helpful for visitors.

Using the base map from the general map, a dedicated access map would also be available, focused on routes, facilities and key access-related details – giving more in depth information regarding slopes, distances and facilities than the general map. This directly responded to user feedback around terrain, gradients, rest points and accessible viewpoints, allowing visitors with specific access needs and young families to plan visits with confidence.

Family map

A simplified, discovery-led version of the map designed to encourage exploration and engagement with nature for families and children would be provided at sites with a large family offer. Insights showed that families wanted more visual, story-led orientation tools that help children participate in route planning and wildlife spotting.

A bank of inter-generational diverse visitor illustrations was created to cover common family experiences on sites, such as pond dipping, natural play, bug hunting and picnicking. In addition, a collection of species illustrations of commonly-spotted nature experiences were created for children to connect with, such as ducks, bees, butterfly or blue tit.

Printed and downloadable maps

Each of the three core site maps were supported by additional information for different visitor needs and contexts.

Each tear-off (or download) contained map content tailored to its audience, designed as much for orientation as for experience planning, both pre-visit and on arrival.

These maps were made available as paper tear-offs at larger staffed sites, as downloads from the reserve's webpage and via QR codes displayed on site signage at all reserves.

Drawing directly on research findings, they included:

- Trail information (eg. distance, estimated walking time, seasonal changes, accessibility notes)
- Facilities listings (eg. toilets, cafés, hides, seating, access notes)
- Nature highlights (pond dipping, wildlife garden, viewing points) and inspiring photography to build anticipation and connection
- Family-specific activities and discovery themes (on family maps)
- Cross-links to other formats via QR code (e.g. general maps link to access or family maps)

Importantly, they were not only taken away by visitors but were also the primary content presented at on-site orientation points, ensuring a consistent and useful introduction to the site regardless of how or where a visitor accessed the map.

This allowed maps to remain low-barrier and inclusive, while still enabling digital extensions for those who preferred mobile access – a direct response to the insight that paper was strongly preferred, but many visitors also took photos or were happy to download digital versions.

Family maps show diverse, intersectional and multi-generational groups enjoying activities together.

Toolkit and templates

To future proof the project and embed consistent design principles into BAU processes, a site toolkit and template was created for use by internal teams to guide teams through commissioning their own site maps. This also enabled quicker production, easier updates, and a more agile response to changing on site needs for internal teams.

Experience planning

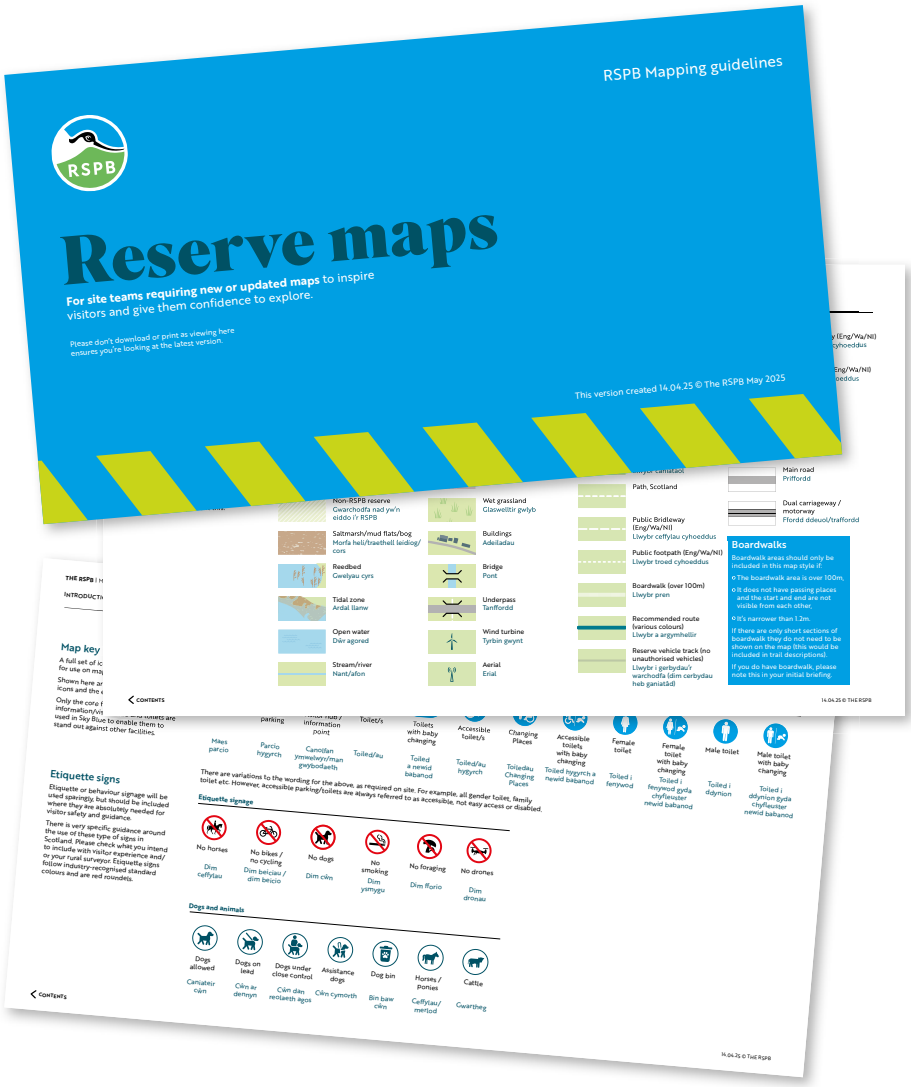
Beyond the maps themselves, the project redefined how orientation supports the wider visitor experience. Rather than simply reflecting the landscape, maps were designed to actively guide and shape visitor journeys – fulfilling their motivations for visiting, encouraging exploration and giving visitors ownership of their experiences.

Experience Planning was an element that evolved from the brief and had overlap with the signage project in terms of the installation on site.

What is experience planning? At the start of their visit, every reserve has this space which shows the site map, trails and facilities available, events and temporary notices and potentially which species have been seen recently.

All maps were reorientated to match up with the visitor's arrival experience on site. So the map they looked at first time at the welcome area, matched the map in their hand and the map they downloaded from the website. No more turning them upside down to match their experience in real life!

Using a grid on the base maps allowed for easy heads up orientation out on site too. So what was in front of you on the map, always reflected what was in front of you on the ground. In turn, taking this approach to heads up orientation from the outset meant that the base maps were designed to be easily rotated in future which greatly sped up time creating variations as needed.



Mapping toolkit for reserves

Accessibility throughout

Access considerations weren't seen as 'separate' but integrated into all maps as much as possible while maintaining clarity. For example, to support people with visual impairment, the access map was created as a large print document, but the colours used throughout the maps were also chosen for high contrast so trails were clear. So maps could be enjoyed by people with a large range of colour blindness and this was checked using online tools in the development stage.

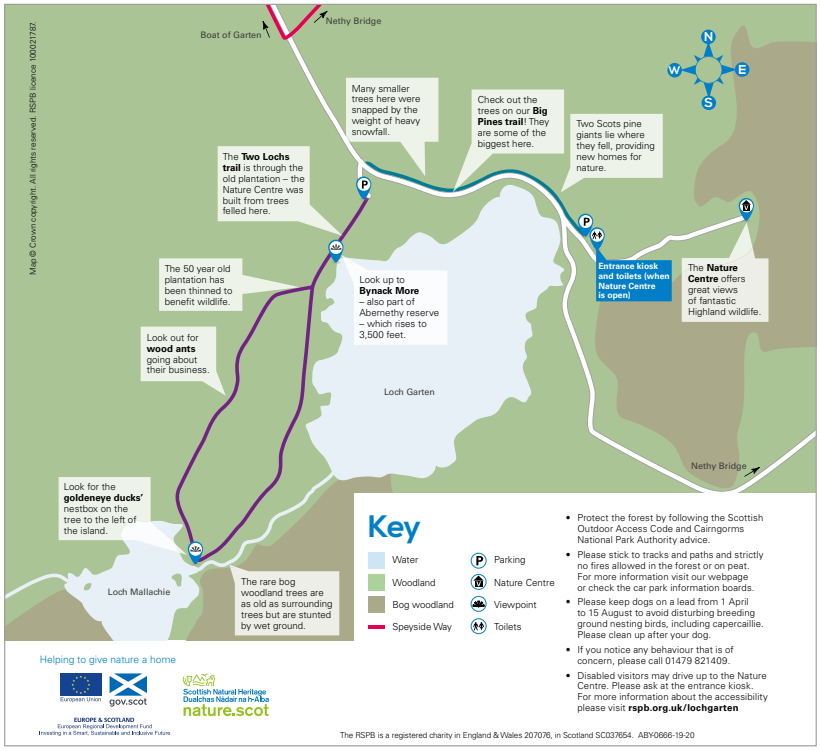
"...you have done a really thorough job of making sure that the accessibility requirement stands out as one of the key things we are looking to be addressed. It's very clear that this is a priority and I'd hope that this would translate to responses that put accessibility at the heart of the solution."

– **John Dowswell**, EDI lead, RSPB

Leading the signage

Importantly, the mapping work ran ahead of the new reserves signage project, which allowed the design of the maps to define the flow and logic of on site experiences. By starting with maps, we gained a clear view of how visitors might engage with different parts of the reserves. This shaped subsequent signage needs, such as how trails should be colour coded for contrast on the map to then inform the wayfinding on the ground, where to position entry points to reduce bottlenecks and how to ensure routes were visually and physically accessible from the outset. Many previous routes have been renamed, amalgamated, separated, redirected or reduced as a result of the mapping work, to make the visitor experience more intuitive and engaging on the ground.

The final mapping suite was designed to be flexible and adaptable, allowing seamless integration into on-site orientation points, whether digital, paper-based or on signage, while offering a coherent and branded visual experience across the RSPB estate.



***Before:** Loch Garten map*

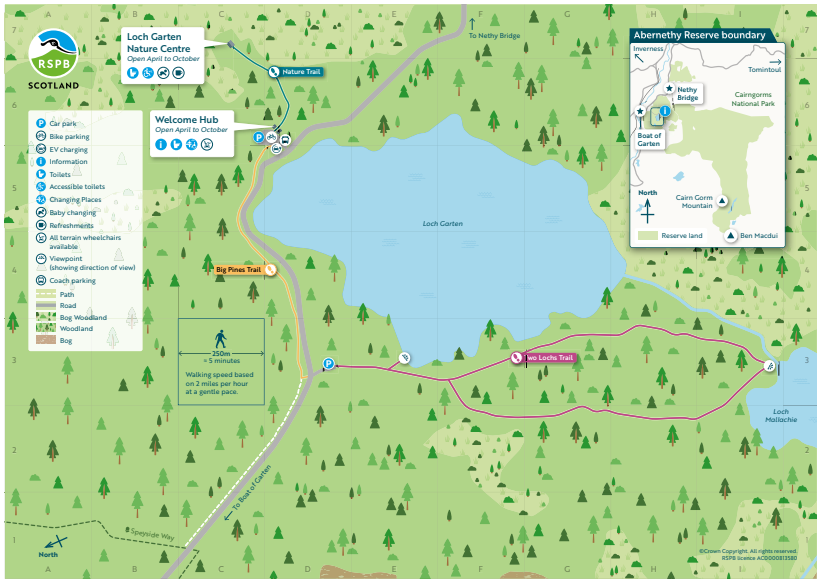
User testing

Early visitor research looked at what people wanted from the maps. Secondary testing was to establish preferences and behaviour on suggested formats

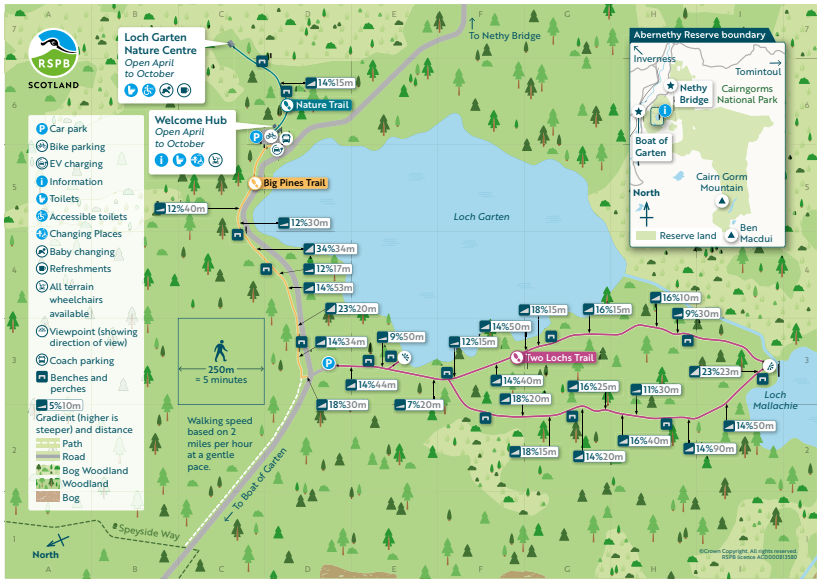
The project used formative evaluation to ensure design solutions met the initial objectives and goals. The user testing phase was instrumental in responding directly to how visitors used the new maps, and thinking outside of our internal biases. We found that comprehension of maps was also much better than before.

For example, during the second round of market research focusing on user testing, visitors were surveyed for their preferences, and feedback responded to directly. To meet Objective 2 on accessibility and inclusivity and to directly respond to the initial feedback on ease of orientation, need for distances and scale, two scale options were put to visitors at Old Moor. The first was a map with a traditional scale, the second option was a map with a less commonly used, grid-based scale and icon indicating the estimated time taken to move one square. Even after initially stating they preferred a traditional map scale to work out distances, visitors found themselves automatically using the grid based map to work out a distance, when asked, because of its simplicity. Some even pointed out that their feedback had been contradictory, retracted their initial preference and became very enthusiastic about the grid system!

This two-stage approach to research and testing meant that the final maps were informed directly by their audiences and met the project objectives.



***After:** Loch Garten general map*



***After:** Loch Garten access map*

Results

At the time of writing, the new maps have been in use at Old Moor in England since March 2024, at Conwy in Wales since March 2025 and at Loch Leven in Scotland since April 2025 (all have the general map, access map and a family map) so feedback and results are based on these fairly short timelines.

100% reduction in legibility complaints regarding maps to date.

+10% increase in visitors scoring 5/5 for ease of wayfinding in feedback surveys after the new map introduced at Loch Leven (two months prior, compared with two months post map and signage).

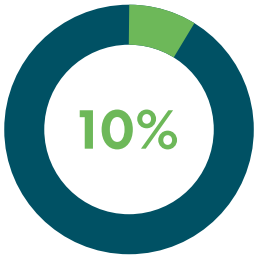
+4.5% increase in membership at Old Moor in the year after the mapping went live. Showing that improved on site experiences are leading to repeat visits and an increase in membership to the RSPB.

The important **Visitor Attraction Quality Assurance Scheme** (VAQAS) assessments have also recently taken place and commented specifically on the new maps:

"The trail map provided is thoughtfully designed and serves as an invaluable asset for visit planning. Additionally, the accessibility map... is particularly helpful for encouraging individuals with mobility challenges to visit, boosting their confidence in the overall experience they can expect on-site.'

'The family map was a delightful addition which was well designed and themed and pinpointed the best experience if young children are in the visiting group."

– **VAQAS report 2025** for RSPB Old Moor by Visit England



increase in visitors scoring 5/5 for ease of wayfinding

reduction in complaints about map legibility

Volunteer feedback has also proven that the maps are having an impact:

"One reaction by visitors has really stood out; every time I've given out an access map, the visitor's face has lit up and they've commented on the slope gradient and length information. I've had lots of people say they really appreciate it and they've not seen any other attractions provide this information."

– **Welcome Volunteer** at Old Moor

There has been an observed behaviour change too. At Old Moor, staff have reported more people using Wild Play and more people now using the correct ponds for dipping.

Operational impact

Thanks to the 25-page site toolkit, site teams are now commissioning independently as part of the reserve roll out, reducing the burden of design resource on the internal team.

Influencing factors

Timings of the project, and work plans on the initial nature reserves, have been influencing factors in data collection since rollout of the first maps.

A change in reporting has also made it harder to compare year-on-year. We have far more anecdotal evidence of their effectiveness than we do in terms of statistics due to staffing pressures on site.

In addition, the maps are only implemented on site as the signage roll out takes place. Over the next few months, there are several more sites going live but at time of writing, only three reserves from which to draw conclusions.

"The Map Toolkit has proved to be an excellent resource in guiding the development of a reserves visitor map. It offers a comprehensive, step-by-step framework that clearly outlines what needs to be done, how to do it, and who should be involved – alongside thoughtful explanations of the design decisions behind each stage. Its first use in planning and briefing designers for a complete suite of maps at RSPB Saltholme resulted in an efficient, well-structured process that was easily understood by both the site team and the supporting project manager."

– **Ed Chivers**, Visitor Experience and Events Area Consultant, Scotland and North England

Conclusion

This project successfully delivered on all four of its original objectives through design that was strategic, insight-led and deeply collaborative.

1. Audience-focused

Research shaped every decision from iconography to language to trail clarity, ensuring the new maps meet the needs of real people, from first-time families to expert birders. Multiple formats cater to distinct motivations, helping visitors confidently choose the experience they want.

2. Accessible and inclusive

By leading with accessibility, not retrofitting it, the new maps empower all visitors to explore within their abilities. Features like clear distances, rest points, terrain types, and alternative formats directly answer the barriers revealed in research. Design helped replace exclusion with autonomy.

3. Connect more people to nature

Easier navigation, better on-site orientation and engaging map visuals have directly improved visitor confidence and satisfaction. Positive feedback, increased use of trail routes and stronger dwell time all show that the new maps help visitors form deeper connections with nature – and return again.

4. Flexible and efficient

The toolkit, templates and design system enable any site to adopt the new map suite. Maps are now easy to commission, faster to produce, easier to update and can easily adapt to location, all while remaining consistent with brand and strategy.

Credits

The Way Design

India Rabey

Mary James

Emily-Jane Pasco

Ben Horne

RSPB

Kate Struthers

Pete Exley (now retired)

Stakeholders and leads from RSPB Visitor Operations team, Brand team, EDI team and Service Design team.