



Cole Mere Countryside Heritage Site, Shropshire

Visitor Survey Report and Management Plan

Consultation Draft
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Cole Mere Countryside Heritage Site, Shropshire

Visitor Survey Report and Management Plan

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Cole Mere Countryside Heritage Site, Shropshire

Visitor Survey Report and Management Plan

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Cole Mere Countryside Heritage Site, Shropshire

Visitor Survey Report and Management Plan

EXECUTIVE SUMMARY

Shropshire Council is undertaking a Local Plan Partial Review that will include consideration of housing allocations in Shropshire over the next 20 years. A Habitats Regulations Assessment (HRA) is being carried out for each stage of the Partial Review, to determine whether the Plan is likely to generate any significant adverse effects on European Protected Sites, including Ramsar sites.

Cole Mere Countryside Heritage Site is designated as a Ramsar site and is also a Site of Special Scientific Interest (SSSI) and Local Nature Reserve. It is situated close to the settlements of Ellesmere and Wem, towns which are likely to see an increase in housing allocations of around 1,620 new dwellings, an increase of around 12%. Cole Mere is designated for its wetland habitats and associated plant and invertebrate communities.

An Initial HRA Screening Report (Shropshire Council, 2017) has identified that the Plan has the potential to adversely affect the conservation status of the Ramsar qualifying features at Cole Mere through increased recreational pressure. Shropshire Council has therefore commissioned EPR Ltd to undertake a comprehensive visitor survey at Cole Mere, to assess the baseline levels of recreational pressure, analyse patterns of visitor access and behaviour, and identify any particular areas where recreational activity may come into conflict with sensitive habitats. This research will inform the next stage of the HRA, as well as production of a targeted Visitor Management Plan for the site.

Face-to-face visitor questionnaire surveys using a standard methodology were carried out at Cole Mere in August and September 2017. In total 102 groups were interviewed during the survey. Initial analysis suggests that baseline recreational pressure is relatively low, at around 8.5 people per hour (averaged across the year) and 37,000 people per year. The majority of visitors complete the circular walk around the lake. Dog walking was the most commonly cited reason for visiting (47.1%), although walking and exercise were also popular. The majority of dog walkers said their dog(s) were let off the lead (86.2%), and almost half of dog owners said their dog(s) entered the water (48.3%).

An indicative visitor catchment area of 11.7 km from Cole Mere is proposed, within which developments involving a net increase in housing in Shropshire may contribute to an increase in recreation pressure at the site.

EPR considers that in light of the high baseline visitation levels at Cole Mere, any increase in recreational pressure arising from new housing within the 11.7km catchment is likely to give rise to significant adverse effects upon the structure, function and integrity of the site, acting in combination with other factors. Suitable on and off-site impact avoidance measures are therefore suggested. These will be discussed with key stakeholders, including the site rangers and Natural England prior to the finalisation of this report.

Cole Mere Countryside Heritage Site, Shropshire

Visitor Survey Report and Management Plan

1. INTRODUCTION

Background and Planning Context

- 1.1 Cole Mere Countryside Heritage Site is located around 3 km to the south-east of the town of Ellesmere in Shropshire and is a component site within the Midland Meres and Mosses Phase 2 Ramsar site. Ramsar sites are wetlands of international importance, designated under the Ramsar Convention of 1971. The Meres and Mosses were selected for their range of natural or near-natural wetland habitats and associated rare plant and invertebrate assemblages. Cole Mere is thought to be the only site in England supporting Least Water-lily *Nuphar pumila*.
- 1.2 Shropshire Council is undertaking a Local Plan Partial Review that will include consideration of housing allocations in Shropshire over the next 20 years. The towns of Ellesmere and Wem and surrounding areas are likely to see an increase in housing allocations of around 1,782 dwellings in the plan period 2016-2036. The resultant increase in the number of residents in the area is therefore likely to elevate visitation levels to Cole Mere.
- 1.3 In accordance with the National Planning Policy Framework (NPPF), a Habitats Regulation Assessment (HRA) must be carried out for any plan which could affect Ramsar sites, in the same way as European Protected Sites designated under the Conservation of Habitats and Species Regulations 2010. The purpose of the HRA is to ensure that the Plan will not adversely affect the conservation status of any international site.
- 1.4 An Initial Screening Report under the Habitats Regulations has been carried out for the Issues and Strategic Options stage of the Local Plan Partial Review (Shropshire Council, January 2017). This report found that recreational impacts would be a key issue for development in the Ellesmere area, due to potential effects on Cole Mere. A Visitor Impact Baseline Survey (Castle, 2015) also flagged up potential recreational effects, such as trampling and disturbance of habitats by people and dogs.
- 1.5 In order to build an evidence base for the next stage of the HRA, it is necessary to gather data on baseline levels of recreational pressure exerted on Cole Mere, analyse patterns of visitor access and behaviour, and identify any particular areas where recreational activity may come into conflict with sensitive habitats. EPR was therefore commissioned by Shropshire Council to carry out a comprehensive suite of visitor surveys at Cole Mere in August and September 2017. This report sets out the results of these surveys.
- 1.6 The results indicate that recreational activity is likely to contribute to a significant adverse effect upon the features for which Cole Mere was designated as a Ramsar site.
- 1.7 The evidence collected from visitors and conversations with the site rangers and Natural England officers has therefore been used to inform draft on-site mitigation measures. These will be discussed with the key stakeholders prior to the finalisation of this report.

Aims and Objectives of the Survey

1.8 The aims and objectives of the visitor survey are as follows:

Gather robust baseline information on levels and patterns of recreation at Cole Mere;

Identify potential areas of conflict with the features for which the site was designated, allowing targeted and evidence-based mitigation measures to be designed;

Draw up a 'wish list' of features that visitors are looking for when they visit countryside sites for recreation, to assist with the design of alternative open spaces;

Identify a core visitor catchment area for Cole Mere within which future development proposals may contribute to an increase in recreational pressure; and

Generate a comprehensive dataset that can be compared with surveys in future years, and/or similar studies at other sites, to enable monitoring of the baseline position.

Structure of this Report

1.9 **Section 2** of this report looks at Cole Mere in more detail, including the reasons for its designation and current condition. This Section also provides an overview of available information on the ecology and requirements of the habitats and plant and invertebrate communities associated with the Ramsar designation.

1.10 **Section 3** describes the methodology used for the visitor survey. **Section 4** then presents the results, using graphs and maps to illustrate key findings and drawing on data from previous surveys where relevant. **Section 5** discusses the implications of the results with reference to comparable studies and projected future visitation levels, and considers whether an increase in housing numbers is likely to give rise to a significant adverse effect upon the site's conservation status. Finally, initial recommendations for appropriate impact avoidance and mitigation measures are set out in **Section 6**, including draft mitigation measures and measurable targets.

2. COLE MERE

Description of the Site

- 2.1 Cole Mere is an open access site of around 48 ha, owned and managed by Shropshire Council as a Countryside Heritage Site. It is located immediately to the north of the village of Colemere and lies around 3 km to the south-east of the market town of Ellesmere. The main feature of Cole Mere is a circular walk around the Mere itself, which is surfaced throughout (including a stretch of boardwalk), and passes through areas of fringing woodland and grassland. The site is not grazed at present.
- 2.2 A free car park with space for around 40 cars is available, and there is some informal parking for up to around 6 cars along the lane which passes to the west of the site. Site furniture includes several seats, picnic benches in the car park field, waymarkers, and information boards about the site and its flora and fauna. There are no toilets or refreshment facilities: a previous toilet block was vandalised in 2003 and has not been replaced. Private sailing and fishing takes place and there are numerous fishing pegs around the Mere.
- 2.3 Dog waste bins are located at the main entrance from the car park field to the circular walk, and at a secondary entrance near Little Mill Field. Signs in the car park and at kissing gates request that dogs are kept on the lead during the bird nesting season from 1 March to 31 July inclusive.
- 2.4 Cole Mere is linked to the Shropshire Union Canal towpath at Yell Bridge by a stoned track and steps. The towpath is part of the Shropshire Way and can be followed to Ellesmere, around 3km to the north-west.
- 2.5 Cole Mere does not have a permanent ranger/warden presence, but is part of a wider portfolio of sites managed by the Council's Conservation & Ranger Team. It is covered under a Higher Level Environmental Stewardship Scheme. The most recent visitor management plan is dated 2008-2013; key points from this plan are discussed further below under Qualifying Features.

Designations

Midland Meres and Mosses Phase 2 Ramsar Site

- 2.6 As shown on **Map 1**, Cole Mere is one of 18 component sites within the Midland Meres and Mosses Phase 2 Ramsar site, designated in 1997. The Meres and Mosses are characterised as areas of lowland open water ('meres') and peatland ('mosses'), formed in natural glacial depressions. The majority of the meres are nutrient rich, while the mosses are nutrient poor and acidic.
- 2.7 The network of sites qualifies under Ramsar Criterion 1 for its diverse range of wetland habitats from open water to raised bog, and Criterion 2 for its rare plant and invertebrate assemblages. The Ramsar Information Sheet does not refer to Cole Mere specifically.
- 2.8 Under the provisions of the National Planning Policy Framework 2012, Ramsar sites are afforded the same level of protection as European Protected Sites (Special Areas of Conservation and Special Protection Areas) designated under the Conservation of Habitats and

Species Regulations 2010 (as amended). This means that a Habitats Regulations Assessment must be carried out on any plan or project that is likely to affect a Ramsar site.

Cole Mere SSSI

- 2.9 Cole Mere was first notified as a SSSI in 1963 and re-notified in 1984 under the Wildlife and Countryside Act 1981 (as amended). The citation notes the rich flora of aquatic macrophytes, and in particular Least Water-lily, for which Cole Mere is thought to be the only site in England. The SSSI citation also includes the fringing woodland, which is 'of artificial origin' but 'of value as a habitat to birds and adds to the diversity of the site'. Also mentioned are an area of semi-natural alder carr (wet woodland) which supports Greater Spearwort *Ranunculus lingua* and the rare Elongated sedge *Carex elongata*, the damp rush pasture in Yell Field, and the aquatic invertebrate fauna, which is described as 'particularly diverse'.
- 2.10 The site was also declared as a Local Nature Reserve in 1999.

Qualifying Features

- 2.11 Information on the current condition of the Ramsar qualifying features is presented below, along with potential factors that could affect their conservation status. A summary of available information on the ecological requirements of these features is also provided. This draws on the following information:

SSSI Condition Assessment (Natural England, 2014);

Colemere Management Plan 2008-2013 (Shropshire Council);

Brown Moss & Colemere Visitor Impact Baseline Survey (Gill Castle, 2015) and observations made by author in 2017; and

Various Natural England research reports – see References in **Section 6**.

- 2.12 The 2015 Baseline Survey involved taking baseline monitoring photographs, counting visitor numbers, recording observations of recreational and potentially damaging activities, and creating maps showing access points, paths, desire lines, formal and informal parking, with notes on condition and apparent level of use. A brief assessment was also provided as to whether designated habitats and species were being damaged or threatened as a result of current visitor use, along with suggestions of possible visitor management measures.
- 2.13 In August 2017, Jodie Southgate of EPR visited the site to make observations and take update photographs for comparison with the 2015 survey.

Condition

- 2.14 Natural England's most recent Condition Assessment (2014) categorised the Mere and surrounding woodland, which constitutes the majority of the site, as '**Unfavourable No Change**', noting that it fails on characteristic species and water chemistry but Least Water-lily still present. The known locations of Least Water-lily are shown on **Map 6**.
- 2.15 Both the rush pasture in Yell Field and the meadow in Little Mill Field were categorised as '**Unfavourable Recovering**'. It was noted that coarse species were present in the grassland sward in Yell Field due to historic problems with grazing/cutting. Little Mill Field had been recently cut at time of the survey, so few indicator species were seen.
- 2.16 The most recent Management Plan for the site (2008-2013) notes that ongoing vegetation surveys since 1979 show a marked decline in aquatic vegetation.

Potential Effects

- 2.17 The 2008-2013 Management Plan and the 2015 Baseline Survey identify several factors which could potentially affect the qualifying features of the site:

Recreational Factors

Trampling of vegetation by people and dogs: the 2015 study and observations made in 2017 found that there are numerous desire lines leading off the formal paths, mainly affecting dry woodland (not a qualifying habitat) and to a lesser extent the species-rich grassland, wet woodland and emergent vegetation;

Dogs swimming in the water – the 2015 study estimated that around 15% of the margins at Cole Mere are regularly disturbed, mainly in Yell Field and Little Mill Field with occasional access points in Boathouse Wood and Yell Wood;

Unauthorised swimming;

Unauthorised plant collecting;

Eutrophication through dog faeces – particularly in Yell Field;

Damage by boating activities;

Disturbance adjacent to fishing pegs – the 2015 study estimates that this is restricted to an average of 1m width at 37 locations (approximately 1-2% of the shore); and

Excessive baiting (angling) can contribute to decline in aquatic vegetation.

- 2.18 Recreation can also have indirect effects. For example, local opposition to scrub/tree clearance or the introduction of grazing animals can interfere with habitat management plans.

Other Factors

Shading of the open water and margins;

Trampling/disturbance and grazing by waterfowl notably large colonies of Canada Geese and Black-headed Gull;

Nutrient loading and eutrophication by waterfowl;

Nutrient loading and eutrophication via the catchment: the Mere is mainly groundwater fed (estimated at 61-82%), but there are various inflow sources, notably from the canal) as well as some surface water from agricultural land – nitrogen critical loads in Shropshire are estimated to be at over 300% (S. Swales, *pers.comm.*) and Cole Mere is in a Nitrate Vulnerable Zone;

The composition of the fish community can affect the plant assemblage;

Water abstractions from the aquifer;

Invasive species and Ragwort; and

Succession/natural regeneration of the grassland and woodlands.

Ecological Requirements

- 2.19 Detailed ecological survey work at Cole Mere has focused largely on Least Water-lily, as Cole Mere is the only known site for this species in England. A recent Conservation Plan for this species (Lansdown, 2017) summarises its known ecological requirements, thought to be as follows:

Intolerant of shade and the secondary effects of shading such as build-up of leaf litter;

Requires still, clear water around 2m deep with minimal wave action and disturbance;

Has limited dispersal capability, occurs in isolated stands;

Prefers oligotrophic or mesotrophic conditions;

Typically grows in lake margins and sheltered bays, or in pools in marshes/bogs; and

May be adversely affected by high turbidity.

- 2.20 Management for this species to date at Cole Mere has focused on the removal of fringing trees and scrub such as Rhododendron near its current known populations on the northern side of the lake.
- 2.21 Other key aquatic and marginal species such as Elongated Sedge, Fan-leaved Water Crowfoot and Autumnal Water-starwort are also thought to be relatively intolerant of shading and disturbance (Mileto *et al.*, 2008). The invertebrate assemblage at Cole Mere has not been extensively studied, but it is assumed that management targeted at the wetland habitats and plant assemblages would also help to maintain the favourable conservation status of the associated invertebrate assemblages.
- 2.22 The rush pasture and meadows in Yell Field and Little Mill Field require grazing or mowing to reduce nutrient levels and prevent the dominance of coarse, competitive grasses, rushes and forbs and eventual succession to scrub.

3. VISITOR SURVEY METHODOLOGY

Background to Methodology

- 3.1 The visitor survey took the form of a standard exit poll questionnaire, which involves structured face-to-face interviews with visitors as they exit through a set of pre-determined access points within the survey area, utilising a standard set of questions. This method has been used in numerous recreation studies on wetland/coastal Natura 2000 sites by EPR and others, and was originally developed from research on recreational impacts on heathland sites (Clarke et al., 2006, Liley et al, 2005).
- 3.2 The methodology set out in this Section was developed in consultation with the project team at Shropshire Council, following advice from Natural England.
- 3.3 As set out below, survey effort and timings were consistent with similar studies, to allow comparison of results. The questions themselves were also based on those used in other studies, adapted slightly where appropriate to reflect the aims and objectives of this particular survey, and to ensure consistency with previous survey data gathered in 2014 and 2015. The questionnaire is described further below and reproduced in full in **Appendix 1**.
- 3.4 As shown on **Map 2**, the following access points (APs) were chosen for the survey in consultation with Shaun Burkey, Country Parks & Sites Officer for the Council:

AP1 Main Cark Park: Considered to be the location with the highest visitor traffic

AP2 Little Mill Field: Located around halfway around the lake, there is an access gate here from the lane which passes to the west of Cole Mere.

Survey Effort and Timing

- 3.5 In accordance with the standard used by other visitor surveys, each access point was surveyed for 32 hours in total, split up into four survey days cover a weekend and a weekday in both August 2017 and September 2017. The surveys were carried out on the following dates:

Sunday 27 August 2017

Wednesday 30 August 2017

Saturday 23 September 2017

Friday 29 September 2017

- 3.6 On each survey day, interviews were carried out in the following two-hour sessions:

07.00 to 09.00

10.00 to 12.00

13.00 to 15.00

17.00 to 19.00

- 3.7 The even mixture of mornings/afternoons, weekdays/weekends and term time/school holidays was designed to ensure that a representative mixture of visitation levels and pattern would be captured, and also to reduce the possibility of factors such as unusual weather or local events introducing bias into the results.

Interviews

- 3.8 The face-to-face interviews were conducted by Marketing Means, an independent specialist market research company with experience of carrying out similar exit poll questionnaires using this methodology. Marketing Means engaged local surveyors who are certified members of the Market Research Society and have extensive experience of positively engaging with potential interviewees and gathering robust data from face-to-face interviews.

- 3.9 EPR provided maps, questionnaires and a detailed written briefing, and liaised closely with a representative from Marketing Means throughout the course of the surveys to ensure that the agreed methodology was followed. Jodie Southgate of EPR also visited some of the surveyors to ensure that all was running smoothly.

- 3.10 Surveyors interviewed visitors as they passed through their access point in order to obtain information about their visit. Both access points were surveyed simultaneously, to allow direct comparison of the results at each location. Groups of people were counted as one, with only one person interviewed per group, and children under the age of 16 were not approached if alone. Topics included:

Number of visitors and dogs per group;

Where they had travelled from;

Method of travel;

Reason for their visit;

Why they had chosen this site over others;

When and how often they usually visit;

Whether they let their dogs off the lead (if applicable);

Whether their dogs entered the water, and where (if applicable);

Whether they visit other open spaces in the area; and

Facilities and features they would like to see in open spaces in the area.

- 3.11 Maps were used to aid data collection. Visitors were asked to annotate the route they had taken during their visit on a map of the site, and these were coded so that they could be matched to the corresponding questionnaire.

- 3.12 Metadata recorded for each interview included the time of day, weather conditions, and any constraints or limitations. Surveyors were also provided with a notes sheet on which to record any of the following observations:

People or dogs leaving the footpaths shown on the maps;

People or dogs entering the water;

Any other incidents of note.

Entry/Exit Forms

- 3.13 In addition to interviewing visitors, surveyors kept count of the total number of people and dogs entering and exiting their access point on a separate form, also noting the time of day and whether the person/group was interviewed or not. This information was collected to allow analysis of overall footfall at each access point.

Data Analysis

- 3.14 Most questionnaire responses were multiple-choice; these were coded by Marketing Means and passed to EPR as a Microsoft Excel spreadsheet. Answers to the open-ended questions were typed out by Marketing Means and sorted into categories by EPR. Excel was used for the data analysis. All percentages and figures in the Results section are rounded to one decimal place.
- 3.15 The entry/exit forms were also provided to EPR as an Excel spreadsheet. The higher of the two counts from each access point was then combined to represent overall footfall, as the circular nature of the site means that the majority of groups would have otherwise been counted twice, on both entry and exit.
- 3.16 It is likely that the entry/exit data still includes some double counting, as some groups will have been recorded at both access points. On the other hand, surveyors will have missed some entries/exits while they were busy interviewing other groups, and some groups may not have passed through either access point, so this is offset to some extent. Nevertheless, all entry/exit figures given in the Results section are to be taken as broad estimates only, for comparison with similar studies, automated counter data and any repeat studies in the future.
- 3.17 ArcGIS 10.3 software (ESRI UK) was used to aid analysis and presentation of the data collected during the surveys. This included analysis of visitor origins and travel distances (linear distance from point of origin to access point) using a Royal Mail Postcode Dataset for the UK (BHP Data Ltd) and the point distance analysis capability of the ET GeoWizards add-in.
- 3.18 The visitor route maps were each digitised using ArcGIS 10.3 and then analysed using the line density function of the Spatial Analyst extension. This analysis allows production of thematic maps showing the footpaths and roads in the area with the highest levels of visitor use (m/m²) and thus the areas subject to the greatest density of recreational pressure. This can be broken down by different user groups (such as dog walkers vs non-dog walkers) and used to identify potential areas of conflict with sensitive areas of the site, as discussed in **Sections 4 and 5**.

Limitations

- 3.19 While the questionnaire was designed to be as simple and brief as possible, interviewees may decline to answer some questions, and some may be skipped by the surveyor, for example if the interviewee is in a hurry. This limitation is common to all face-to-face surveys and is not considered to be a problem as long as the overall dataset is large enough. Similarly, the 'routes

walked' maps can vary in terms of accuracy, but again, in a large dataset some minor inaccuracies are unlikely to have a significant bearing on the overall results or analysis.

- 3.20 A question about whether car parking charges would discourage people from visiting was generally answered with "it depends how much" during the August surveys. Therefore, for the September surveys it was agreed with the Council that the surveyors clarified this by saying "no more than £1 per day". This is addressed in the description of the survey results in **Section 4**.

4. VISITOR SURVEY RESULTS

Previous Surveys

- 4.1 Visitor surveys were undertaken by Shropshire Council staff in July, August and September 2014 using a similar (but shorter) questionnaire to the one used during the current survey. 24 interviews were completed. Survey times were very limited, to fit in with staff workloads.
- 4.2 As set out in **Section 2**, a baseline monitoring survey carried out in March 2015 included visitor counts and recording observations of recreational and potentially damaging activities. The results of the 2014 and 2015 surveys are presented for comparison where relevant throughout this Section.

Automated Counter Data

- 4.3 An automated counter was installed on the gate between the Car Park Field and Yell Field in 2012 (**Map 2**). The results are summarised in **Table 4.1** and **Figure 4.1** below. These figures cannot be taken as total visitor numbers, as some visitors may not pass through the counter gates, while others may pass through twice. While these offset each other to some extent, the data should be used to compare and monitor visitor figures by season and by year, rather than as absolute numbers.

Table 4.1. Automated Counter Data

	2012-13	2013-14	2014-15	2015-16	2016-17
Quarter 1 (April, May, June)	16,387	19,291	20,615	No data	No data
Quarter 2 (July, Aug, Sept)	23,481	25,000	22,766	No data	No data
Quarter 3 (Oct, Nov, Dec)	14,217	16,000	No data	No data	No data
Quarter 4 (Jan, Feb, March)	11,584	13,946	No data	15,480	16,446
Average	16,417	18,559	21,690	15,480	16,446
Annual Total	65,669	74,237			

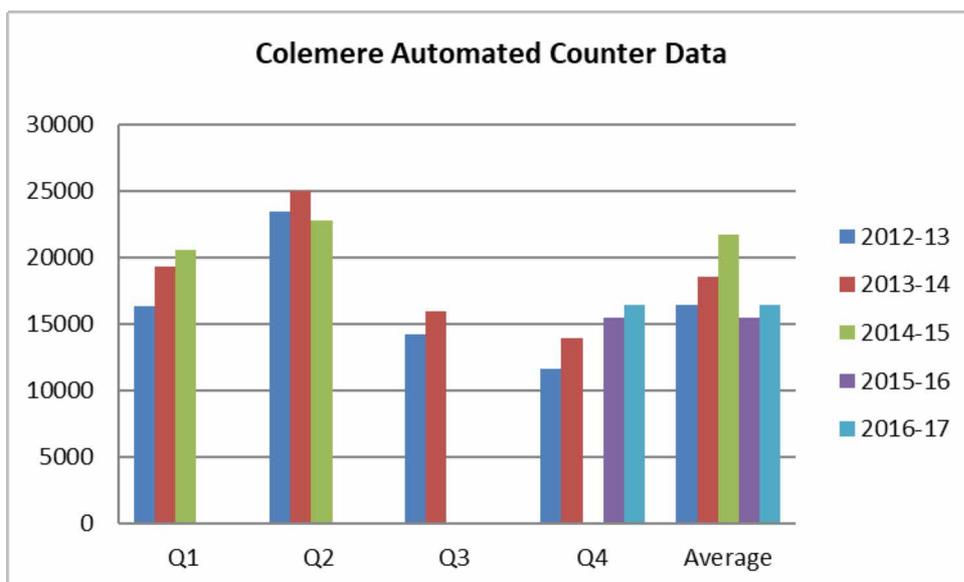


Figure 4.1. Automated Counter Data

2017 Visitor Survey Results

- 4.4 This Section describes the results of the August and September 2017 surveys. Results are presented for both months and Access Points combined, unless otherwise stated. Results are broken down in detail where appropriate, for example by month, access point or user group, and graphs and maps are used to facilitate presentation of the results. No significant limitations were encountered during the surveys.

Weather

- 4.5 A range of weather conditions were recorded, though the most commonly recorded weather type was 'cloudy' (57.8% of interviews), followed by 'sunshine' (31.4%). Showers (but not heavy rain) were reported for 10.8% of surveys. Overall, it is considered that this is a representative mix of 'typical' weather for the time of year.

Footfall

- 4.6 In total, 102 groups were interviewed as part of the visitor survey, involving 213 people. As in 2014, the majority of the visitors were over sixteen (88.3%), with 50.7% aged between 26 and 59, and 30% over 60. Just over half of the groups (56.9%) had at least one dog with them.
- 4.7 In addition to conducting interviews, surveyors also recorded 347 people entering the site in 197 groups, which works out to an average of 1.8 people per group. The number of dogs recorded with these groups was 120, which represents 0.6 dogs per group. Over 64 hours of survey, these figures equate to 5.4 people per hour and 1.9 dogs.
- 4.8 Access Point 1, the main car park, saw greater footfall with a total of 231 people entering the site (7.2 per hour) compared to 116 people (3.6 per hour) at Access Point 2.
- 4.9 Extrapolating the total figures for both Access Points combined yields an approximate daily visitation rate (based on an average 12 hours of daylight across the year) of 64.8 people and 22.8 dogs, or 23,652 people and 8,322 dogs per year. This is notably lower than the automated

counter data, although the counters presumably count people on both entry and exit, meaning that the majority of people will be double counted.

- 4.10 If both entries and exits from the 2017 survey are counted together, a total of 625 people were observed, which gives rise to visitation rates of 9.8 people per hour, 117.6 per day, and 42,924 per year, which is closer to the figures recorded by the automated counters.
- 4.11 The 2014 survey recorded notably higher footfall with 16.8 people and 7.3 dogs observed per hour. Likewise, the 2015 survey recorded 36 people and 12 dogs per hour. However it is likely that again, these figures include both entries and exits, rather than the higher of the two. Data was also collected over a shorter time period: 7.5 hours in 2014; and 6.5 hours in 2015; compared to 64 in 2017. It is noted in the 2015 report that the sample size of both surveys was small and that ‘the 2015 survey was mainly undertaken on what may have been the ‘first sunny Sunday of the year’.
- 4.12 **Table 4.2** sets out a comparison of the footfall data described above. For the 2014/15 surveys and automated counters, visitation rates are adjusted to account for double counting and to allow for direct comparison to the 2017 data. This adjustment has been crudely estimated by dividing the original numbers in two.

Table 4.2: Comparison of footfall data (adjusted; original figures for 2014/15 and automated counters in brackets)

Survey	Time period	Hourly visitation rates	Daily visitation rates	Annual visitation rates
Automated counters 2012-13	Year round	7.5 (15)	90 (180)	32,835 (65,669)
Automated counters 2013-14	Year round	8.5 (16.9)	101.7 (203.4)	37,119 (74,237)
Visitor survey 2014	7.5 hours	8.4 (16.8)	101 (202)	36,792 (73,584)
Visitor survey 2015	6.5	18 (36)	216 (432)	78,840 (157,680)
Visitor survey 2017	64 hours	5.4	64.8	23,652
Average (excluding 2015)		7.5	89.4	32,600

- 4.13 As mentioned above and in **Section 3**, these figures are by no means accurate due to the potential for double-counting or under-counting visitors, however they provide a useful comparison between years, and can be used to monitor the baseline position.

4.14 With the exception of 2015, which appears to be an anomaly, the adjusted visitation rates are closer, ranging from between 23,652 and 37,119 visits per year, averaging out to 32,600. As the automated counters collected data year-round, this data is likely to be more accurate than the entry/exit results and so in line with the precautionary principle, the highest annual visitation rate of around 37,119 visits per years is used for the purposes of this report.

Visitor Profile

4.15 Overall, 71 of the groups interviewed released a full and accurate home postcode, of which 79% were Shropshire postcodes. The majority of groups arrived by motor vehicle (67.6%), followed by 28.4% on foot and 2% by either canal boat or bicycle.

4.16 The majority of interviewees (47.1%) stated that the main reason for their visit was dog walking, followed by walking (28.4%), to improve health/exercise (8.8%), experience nature/wildlife (5.9%), or for a family activity (2%). Eight groups (7.8%) gave an alternative reason, these included 'for a change', 'to catch up with family', 'for the peace and quiet', and 'foraging' (**Figure 4.2**). These results are similar to the 2014 survey.

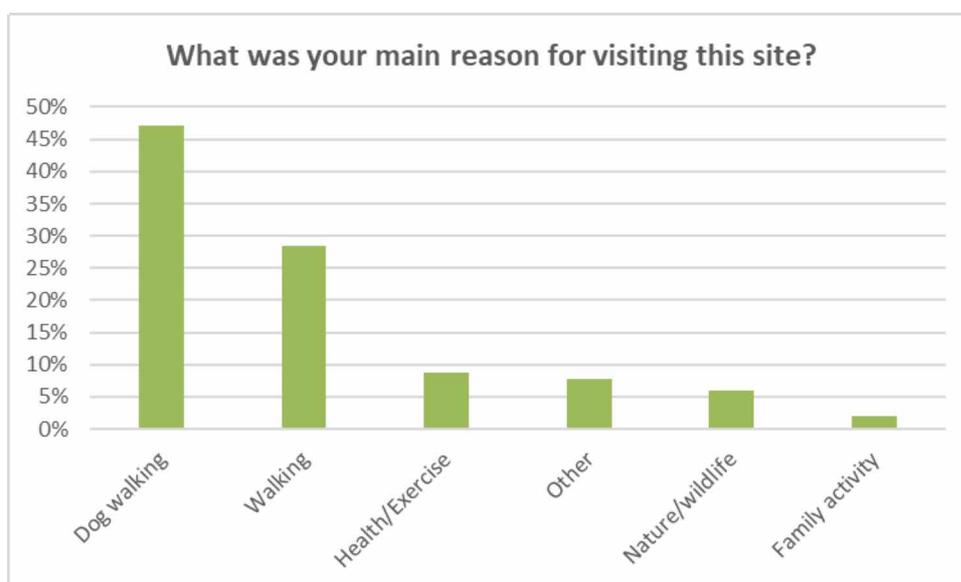


Figure 4.2: Main reasons for visiting Cole Mere

Visitor Origins & Travel Distances

4.17 The 71 accurate postcodes released by interviewees, representing home origins of visitors, were spatially analysed using GIS. Analysis revealed that the majority of visitors came from a wide variety of locations in the north of Shropshire (**Map 3**).

4.18 The average distance travelled to reach the site was 14.6km, with a minimum distance of 77 metres and a maximum distance of 160km. The average distance travelled by car was 13.8km, and those on foot travelled an average of 8.9km (excluding the group who lived 160km away, who are presumed to have walked an unknown distance from their local accommodation). Visitors had travelled considerably further on average in August (18.8km) than September (9.6km).

Catchment Analysis

- 4.19 A commonly used method for calculating the indicative visitor catchment for a site is to take an appropriate percentile figure from a cumulative frequency distribution curve. This involves plotting all of the travel distances in order from smallest to largest, and calculating the distance below which, for example, 20% of the distances fall (this would be the 20th percentile).
- 4.20 Recreation studies on European sites in the Thames Basin, the Solent and the Severn Estuary have used the 75th percentile to propose catchment distances for these sites (Liley et al., 2005, Fearnley & Liley, 2013, Southgate and Colebourn, 2016). Using the 75th percentile gives a more representative understanding of predominant travel patterns to a site than a mean value, because it excludes the upper travel distances that can skew the average figure.
- 4.21 This analysis found that 75% of the total numbers of visitors providing postcodes during the survey had travelled from within 15.4 km of Cole Mere. Performing this calculation using only Shropshire postcodes, this distance reduces to 11.7 km.
- 4.22 The indicative catchment for Cole Mere for the purposes of this study is therefore estimated to be around 11.7 km, as 75% of visitors living in Shropshire travel to the site from within this distance. This catchment is shown on **Map 4**.

Temporal Patterns

- 4.23 Most of the groups interviewed (70.6%) said they visited the site all year round, while 12.7% said they visited in summer. 13 groups (12.7%) were making their first visit to the site.
- 4.24 A higher proportion of interviews took place in August (54.9%) compared to September (54.1%), and the entry/exit data recorded a higher number of people in August (248 people entering in 108 groups compared to 99 in 89 groups in September). The number of dogs was also notably higher in August (75 compared to 45 in September).
- 4.25 The total number of under-16s within groups interviewed was higher in August (19 under-16s compared to 6 in September).
- 4.26 The majority of interviews were completed on a weekend day (60.8%). This is borne out by the entry/exit data, which recorded an average of 126 groups/228 people on the weekend days, compared to 71 groups/119 people on the weekdays.
- 4.27 The time of day that people visited varied. Most interviews, and entries/exits, took place during the sessions between 10:00-12:00 and 13:00-15:00. However, when asked when they typically visit, the most common answer was 'it varies' (32.4%), followed by 'between 9am and 12 noon' (22.5%) (**Figure 4.3**).

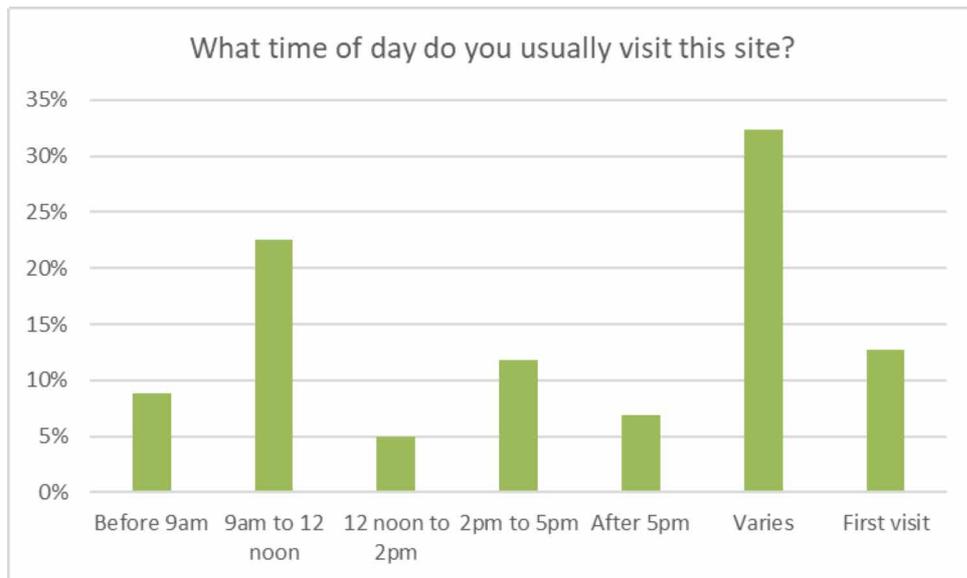


Figure 4.3: Time of day that people usually visit Cole Mere

4.28 Almost a quarter (23.5%) of groups said they only visited occasionally, though responses varied and the second most popular response was 'two or three times per week' (19.6%) (**Figure 4.4**). Groups that had a dog with them were more likely to say that they visited daily/almost daily (20.7% compared to 13.7% of groups without a dog).

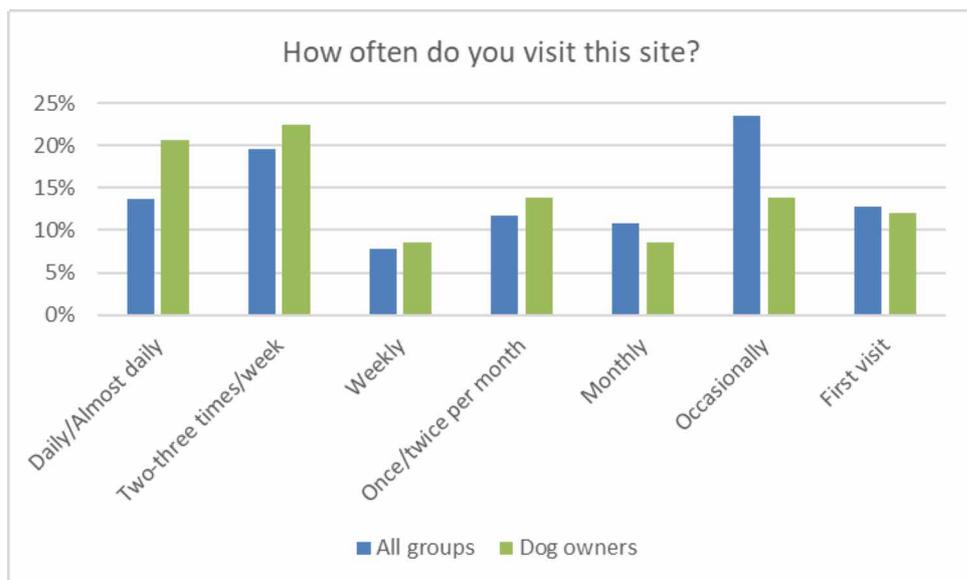


Figure 4.4: Frequency of visits to Cole Mere

Reasons for Choosing Cole Mere

4.29 When asked why they liked to visit Cole Mere in particular, the most popular responses were: 'enjoy the look/feel of this site' (34.3%), 'it's close to where I live' (26.5%), 'peace and quiet' (17.9%) and 'enjoy the wild/natural feel of this site' (17.6%). In total 11.8% of groups cited being able to let the dog off the lead, this rises to 20.7% when only including those groups with a dog. Interviewees were allowed to choose multiple options (**Figure 4.4**).

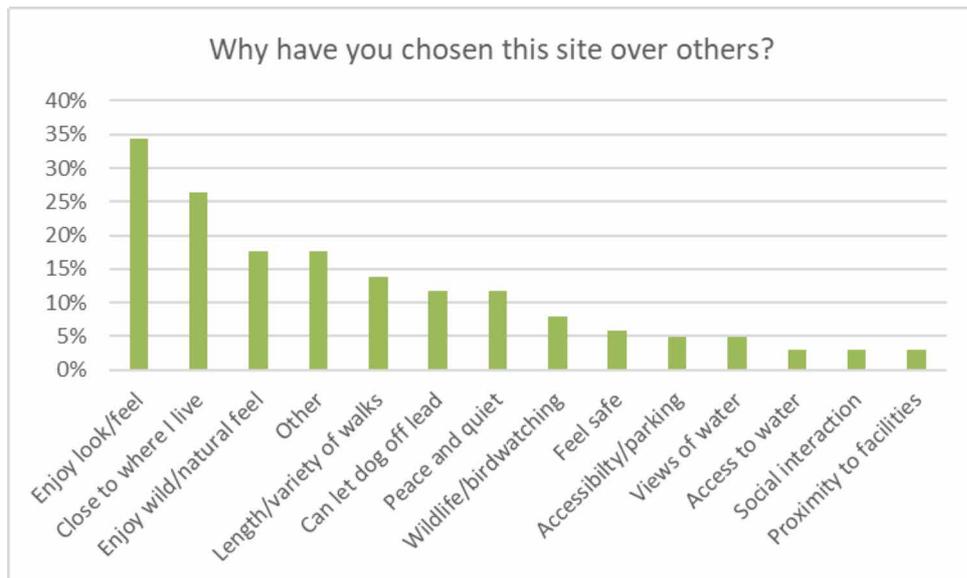


Figure 4.5: Reasons for visiting Cole Mere

4.30 Several groups (17.6%) also cited other reasons for choosing Cole Mere. These included:

- Circular walk (2 groups)
- All weather path (2 groups)
- Close to the canal (2 groups)
- Dogs can swim (2 groups)
- Dog friendly
- Off the main road
- Watching the boats and dogs
- Close to the campsite
- Recommendation
- Well maintained
- Good for foraging
- Freedom
- Trees provide shelter in the rain
- Used to visit when younger

Comments on Cole Mere

4.31 Visitors were asked whether there were any changes they would like to see at Cole Mere, or comments they wished to make. The most popular response was 'nothing' (34.3%), with comments including that 'it's beautiful/perfect as it is', 'well maintained', 'good in the winter', 'like the cycle routes' and 'easy routes to walk'.

4.32 Otherwise, the most common suggestion was to have more dog waste bins (24.5%), particularly in Yell Wood or near the canal, followed by better maintenance of overgrown pathways (17.6%), toilets (11.8%), rubbish bins (10.8%) and enforcement of picking up dog poo (10.8%). Other

suggestions cited by more than one group included more benches and picnic tables, enforcing dogs on leads, be more welcoming to dog owners, café or tea hut and better views of the water.

Car Parking Charges

- 4.33 Visitors were asked whether they would be discouraged from visiting Cole Mere if car parking charges were introduced. In August, responses were 'no' (42.9%), 'maybe/don't know' (32.1%) and 'yes' (25%). For the September survey, this question was amended to include the clarification that the charges would be no more than £1 per day. This did not appear to significantly influence responses, with 44.1% of groups saying 'no', 29.4% saying 'yes', and 26.5% saying 'maybe/don't know' in September.

Routes Walked

Recreational Pressure

- 4.34 The routes that people had taken during their visit were digitised and analysed using GIS software to create thematic maps showing comparative levels of path use within the site, thus indicating the areas subject to the highest levels of recreational pressure (**Map 5**).
- 4.35 This map shows that the vast majority of visitors walked the main circular route around Cole Mere. Low numbers of visitors took shortcuts through Yell Field, and the canal towpath was also used by low numbers of visitors.

Distances Walked

- 4.36 The GIS analysis shows that on average, groups walked 2.5km during their visit, with a minimum distance of 240 metres and a maximum of 5.4km. Groups with dogs walked slightly further on average than those without, at 2.6km and 2.5km respectively. Groups in September walked slightly further than groups in August (2.6km and 2.5km respectively).

Visitor Behaviour

- 4.37 The majority of visits lasted more than 30 minutes (97.1%), with just over half lasting between 30 minutes and one hour (59.8%). Only 37.3% of visits lasted over one hour, compared to 51.8% during the August school holidays.
- 4.38 In total, 86.2% of groups with dogs said that they let them off the lead. Just under half said their dogs entered the water (48.3%) and a similar proportion of groups (46.6%) said their dogs strayed off the paths. Over a third (37.9%) said their dogs stayed on the paths.
- 4.39 The majority of groups (75.5%) said they stayed on the paths themselves, although 21.6% of groups said they left the paths, and five groups (4.9%) said they entered the water.
- 4.40 **Map 6** shows the locations where groups said they or their dogs entered the water. This shows that the majority of the shoreline of Cole Mere is affected, with particular concentrations along the edges of Yell Field, Boathouse Wood and just to the east of Little Mill Field. The latter location coincides with a known Least Water-lily population.

- 4.41 Of the dog-owning groups, around two thirds (67.2%) said they had used a dog waste bin during their visit, and just over a third (34.5%) said they did not. This does not necessarily mean that they did not clear up after their dog, as it is possible that they took their waste home or that their dog did not defecate.

Alternative Sites

- 4.42 Almost half of the groups interviewed (47.1%) said that they regularly visited other open spaces for the same purpose as their visit that day. These groups were asked to name their top three alternative sites. Those cited by more than one group were:

The Mere at Ellesmere (17)
Brown Moss (9)
Grinshill (9)
Haughmond Hill (7)
Fenns, Wixall and Bettisfield (7)
The canals (6)
Ifton Meadows (5)
Church Stretton (3)
Long Mynd (2)
Stiperstones (2)
Corbet Woods (2)
Nesscliffe Hill (2)

- 4.43 The majority of groups said that they visited these sites occasionally (37.5%) or monthly (22.9%). The reasons interviewees gave for choosing these sites were somewhat different to those for visiting Cole Mere. The most popular response was 'it's close to where I live' (29.2%), followed by 'proximity to other facilities' and 'ability to let the dog off the lead' (both 16.7%), and 'enjoy the look and feel of the site' (12.5%). Alternative reasons included 'for a change' (14.6%), to be near family, and following a recommendation.

- 4.44 With reference to Stiperstones and Fenn's Wixall and Bettisfield Mosses in particular, 22 of the 48 groups said they visited Fenn's, eight said they visited Stiperstones, and 20 said they did not visit either site.

What Visitors Look for in Open Spaces

- 4.45 The last question of the survey was designed to find out what visitors look for in the places they choose to visit for recreation, to assist with the planning and design of alternative open spaces. Groups were asked about the facilities and features they would like to see if existing open spaces in Shropshire were improved, or new ones created. The following suggestions were made by more than one group:

Keep it peaceful and natural (24)

Dog friendly, dogs off leads (20)
Toilets (17)
Parking (12)
Well laid-out and marked path network, well maintained (11)
Café or refreshments (10)
Should be free (8)
Pushchair or wheelchair friendly (7)
Views of water (6)
Dog waste /rubbish bins (6)
Nice walks (5)
Information boards, maps, signposts (5)
Woodland areas (4)
Seating, picnic area (4)
Play area for kids (3)
Open space (3)
Well-advertised/signposted (3)
Cycle friendly (3)
Wildlife conservation (2)
Hills/views/scenery (2)
Signs encouraging people to pick up after their dog (2)
Easy to get to (2)

Observations and Notes

- 4.46 As described in **Section 3**, surveyors were asked to make a note of any people or dogs in the water, or other influences of note that they observed at their access points.
- 4.47 Surveyors noted that the dog waste bins were overflowing, but were later emptied. One group of people were observed forcing their dog into the water so that it could learn to swim. At least three cyclists were observed despite 'no cycling' signs.

5. LIKELY SIGNIFICANT EFFECTS

- 5.1 This Section considers the results of the visitor survey work in the context of the Habitats Regulations 2017: i.e. whether increased visitor pressure is likely to give rise to a significant adverse effect on the features for which Cole Mere is designated as a Ramsar site.
- 5.2 Key findings from the visitor surveys are also drawn out, to assist with the design of impact avoidance measures and a consultation draft Visitor Management Plan.

Relative Footfall

- 5.3 When taking relative size into account, footfall and visitor pressure at Cole Mere appears to be in line with that recorded at larger European sites at around 37,000 visits per year (771 per hectare per year). For example, Cannock Chase SAC is estimated to attract around 1.27 million visitors per year (1,024/ha/year), the Thames Basin Heaths 7.5 million (842/ha/year) and the Dorset Heaths 5 million (680/ha/year) (Liley et al., 2009).

Projected Increase in Visitation Rates

- 5.4 The Royal Mail Postcode Dataset (updated March 2018) (BPH, 2018) shows that there are 14,732 existing dwellings within the 11.7 km catchment for Cole Mere. This equates to around 33,883 residents¹ and 5,362 dogs².
- 5.5 The Shropshire Local Plan Review Consultation on Preferred Scale and Distribution of Development Document (October 2017) allocates 762 and 533 dwellings respectively for the Ellesmere and Wem areas, which fall within the 11.7 km catchment. Additionally, some housing will be built in smaller settlements called 'hubs and clusters'. It is not possible to accurately predict how many of these will fall within the 11.7 km catchment, or how many dwellings there will be. However, a rough figure of 487 has been taken from estimations set out in the Site Allocations and Management of Development (SAMDev) Plan 2015.
- 5.6 In total, therefore, around 1,782 new dwellings can be expected to be built within the 11.7 km catchment for Cole Mere during the plan period 2016 – 2036. This represents approximately 4,099 new residents and 649 dogs, an increase of around 12%.
- 5.7 Not all of the new residents will visit Cole Mere, and it is not possible to calculate the likely increase in visitation rates using the results of the on-site visitor data. However, it is reasonable to assume that at least some of them will, at least occasionally. It is therefore likely that the increase in housing numbers within the catchment will, over time, contribute to an increase in visits to the site.
- 5.8 An increase in recreational pressure will only become an issue if it generates significant adverse effects upon the structure, function and integrity of the features for which Cole Mere was designated. The paragraphs below therefore consider whether an increase in recreational

¹ Based on an average household size of 2.3 people in Shropshire, according to 2011 census data (www.ons.gov.uk)

² According to data from the Pet Food Manufacturers Association (2018), on average 28% of households in the West Midlands own dog, at a rate of 1.3 dogs per dog-owning household.

pressure is likely to come into conflict with the features for which the site was designated, thus triggering the need for impact avoidance measures.

Potential Sources of Conflict

- 5.9 Visitor survey data has shown that visitor pressure at Cole Mere is already relatively high. An increase in recreational activity therefore has the potential to generate significant adverse effects, particularly when acting in combination with other threats to the conservation of the site (see **Section 2**).
- 5.10 Given the complex situation at Cole Mere, it is difficult to separate those effects which could be caused solely by recreational activity from those caused by other factors. However, the key areas in which recreational pressure has the potential to exert the greatest influence are considered to be as follows:

Disturbance of sediments by dogs (and to a lesser extent, people) swimming in the water: this can churn up sediments and nutrients such as phosphorus stored in it, increasing nutrient levels and turbidity. Waterfowl also contribute to this;

Interference with appropriate habitat management: higher numbers of could lead to an increase in opposition to habitat management such as tree and scrub clearance, which is necessary to maintain suitable habitat conditions for Least Water-lily; and

Increased levels of trampling and dog fouling in the rush pasture and meadow habitats of Yell Field and Little Mill Field, which could frustrate management actions targeted at reducing the dominance of coarse and rank species in the sward.

The visitor survey found that the majority of visitors had dogs with them (56.9%) and the majority of dogs were allowed off leads (82.2%), while almost half (48.3%) entered the water, exacerbating the problems above.

Likely Significant Effects

- 5.11 Cole Mere is a complex site with high baseline levels of recreational pressure acting in combination with a wide range of other threats to its structure, function and integrity. Any increase in visitation levels, even if modest, could therefore serve to exacerbate existing issues. As such, it is our view that a likely significant effect cannot be ruled out and the implementation of impact avoidance measures is recommended.

6. IMPACT AVOIDANCE MEASURES

- 6.1 Suitable measures to avoid likely significant effects arising from increased recreational pressure at Cole Mere include the delivery of on-site solutions through a targeted Visitor Management Plan for the site, and off-site solutions in the form of alternative green space. These suggestions are explored further below.

Visitor Management Plan

- 6.2 The consultation draft Visitor Management Plan (VMP) aims to reduce the effects of visitor pressure at Cole Mere to a level that does not adversely affect the qualifying features for which the site was designated. The VMP sits alongside and complements the (Habitat) Management Plan for the site. It is set out in three tables in **Appendix 3**:

Cole Mere Visitor Management Plan – Summary

Cole Mere Mitigation Measures

Cole Mere Monitoring Programme

- 6.3 In summary, the VMP is built around the following two themes: Infrastructure Management and Communication and Public Engagement.

Infrastructure Management

- 6.4 Well planned and maintained site infrastructure such as footpaths, bridges, boardwalks, signage, fencing and benches can influence visitor behaviour by directing them towards less sensitive parts of the site.

- 6.5 As shown on **Map 6**, dogs currently swim in the water around the majority of the margin of Cole Mere. It needs be acknowledged that this is a legitimate activity that is valued by visitors, and so rather than attempting to prevent it altogether, designated 'swimming areas' could be promoted in the marginal areas that are unsuitable for Least Water-lily due to other reasons (such as water depth and wave action). Appropriate areas would include the southern shore of the lake near the car park, while access could be prevented along the northern shore through the use of fencing and screening (natural materials can be used such as brash and dead hedging).

- 6.6 Similarly, a low fence or even footpath edging could be used next to Yell Field to discourage access off the path and reduce instances of dog fouling. 'Off-lead' areas for dogs could also be designated and promoted to reduce pressure on Yell Field and Little Mill Field. Suitable locations could include the car park field, and Crab Mill and Gorsey fields.

- 6.7 The infrastructure management measures are illustrated on **Map 7**.

Communication and Public Engagement

- 6.8 The infrastructure management described above will need to be supported by clear and consistent messaging for visitors. This should be prepared and disseminated across several

media types (e.g. on-site signage, noticeboards, interpretation boards, website, leaflets to new residents, social media).

- 6.9 Topics to cover include the nature conservation importance of the site, planned habitat management (such as tree and scrub clearance and why this is needed), the location of designated swimming and off-lead areas as well as alternative sites where recreation is to be encouraged, and positive messages for dog walkers regarding keeping them on leads and picking up after them. It is important that messaging focuses on what visitors 'can do' rather than 'can't do', particularly in the case of dog walkers.
- 6.10 Occasional low-key events such as seasonal wildlife walks would also provide an opportunity to reinforce key messages and raise awareness of the nature conservation value of the site. Opportunities should be taken to work with influential organisations such as the Kennel Club on such initiatives.
- 6.11 Volunteers already play a key role in the management of Cole Mere and new residents should be made aware of ways to get involved, for example through information packs for new homeowners.

Alternative Green Space

- 6.12 'Suitable Alternative Natural Greenspace' (SANG) is an established impact avoidance measure in areas with high visitor pressure such as the Thames Basin Heaths SPA and Dorset Heathlands SPA. SANG serves to divert a proportion of both new and existing residents away from protected sites, aiming to achieve no net increase in visitation levels.
- 6.13 The results of the visitor survey work set out in **Section 4** indicate that the provision and promotion of carefully designed alternative green spaces near Cole Mere has the potential to reduce visitor pressure at the site. The surveys have shown that Cole Mere attracts visitors from a large catchment who mostly visit occasionally (23.5%, compared to 13.7% who visit daily) and also use a wide range other sites, suggesting that they are not attached to Cole Mere. 47.1% cited dog walking as the main reason for their visit, which is comparable to Cannock Chase (45%) and the Severn Estuary in Stroud (42.3%), but lower than at Brown Moss (75.4%) and at the large Thames Basin Heaths and Dorset Heathlands sites (65% and 80% respectively).³ Cole Mere is also popular for walking, exercise and family activities.
- 6.14 The main reasons cited for choosing Cole Mere included the natural look and feel of the site, proximity to home, and being able to let the dog off the lead. The vast majority of visitors completed the circular walk around the lake and several commented that it was a well-maintained path and an easy walk. Any alternative sites should aim to replicate these qualities. As described in **Section 4**, the visitor surveys have also generated a 'wish list' of features that visitors look for when choosing an open space for recreation. These include:

Close to home;

Natural look and feel, peaceful;

³ See Liley (2012), Southgate & Colebourn (2016), EPR (2018), Fearnley & Liley (2013) and Clarke et al (2005).

Dog friendly/can let dogs off the lead/dog waste bins;
Well maintained path network, wheelchair/pushchair friendly;
Parking; and
Provision of benches/picnic tables toilets, refreshments.

- 6.15 Any alternative site should seek to incorporate all or some of these qualities. 'Views of the water' was only 9th on the list, indicating that the lake itself is not the main draw, but it would be advisable to offer a place for dogs to swim. Reference should also be made also be made to Natural England's Guidelines for the Creation of SANGs (NE, 2008) which set out a list of qualities to include when designing effective SANG sites.
- 6.16 Alternative sites around Cole Mere could take the form of newly created sites (ideally in conjunction with larger development allocations), improvements to existing sites to enhance their capacity, and/or improvements to the existing footpath network. Any existing sites should not be of nature conservation importance or otherwise vulnerable to the effects of recreation. Newly created sites on agricultural land close to Cole Mere would also provide an opportunity to reduce the effects of nutrient run-off.

7. CONCLUSION

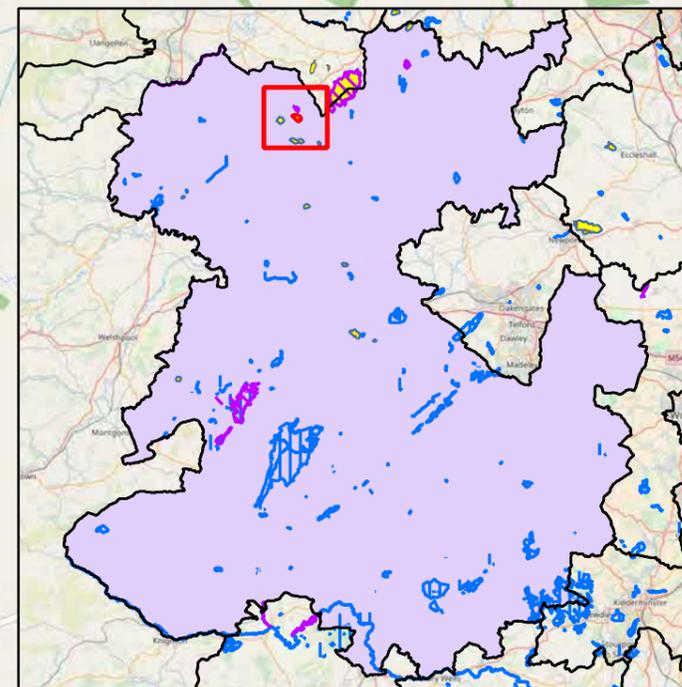
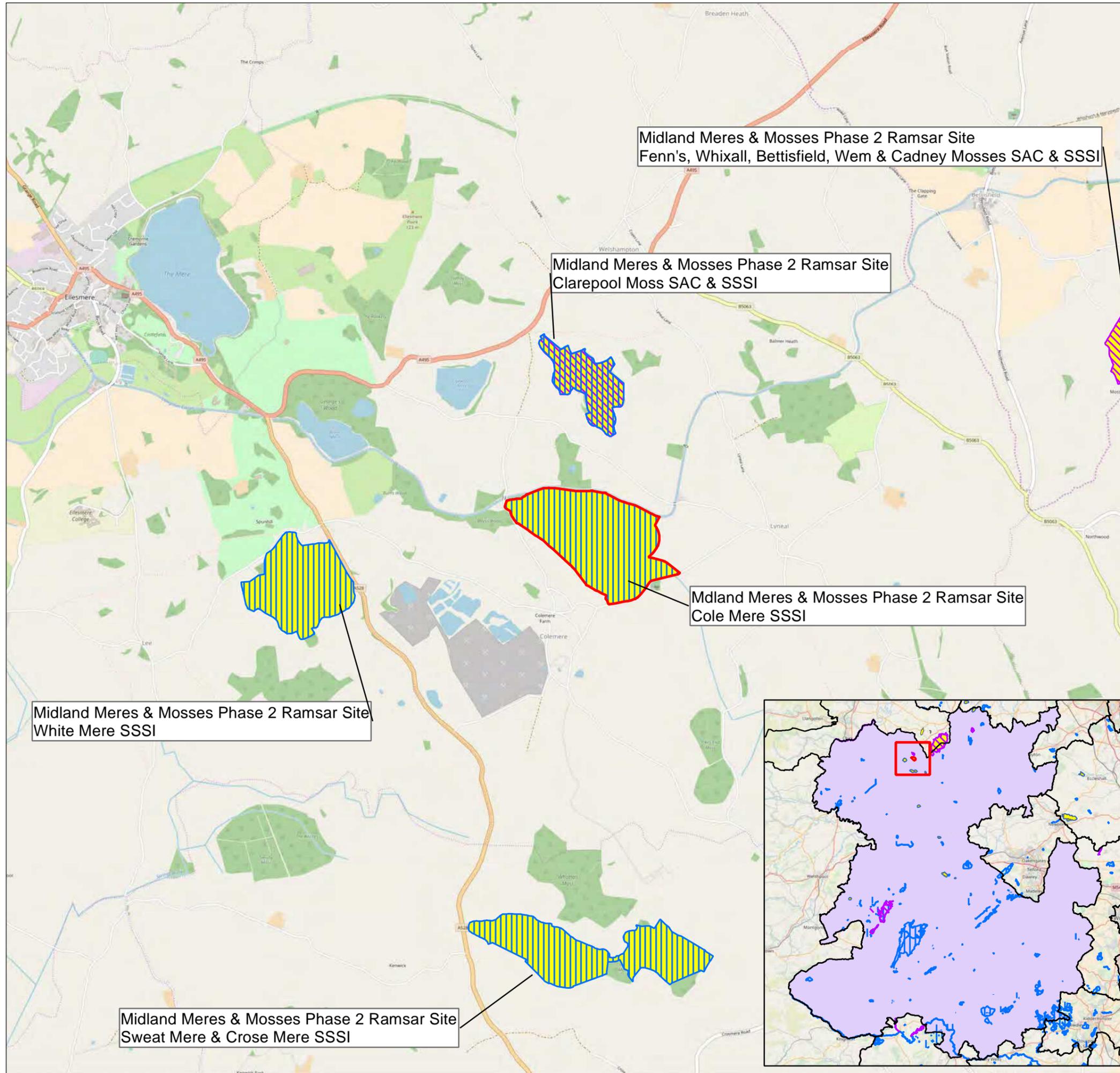
- 7.1 Robust baseline information has been gathered on current levels and patterns of recreation at Cole Mere. This work has found that recreational pressure is relatively high, and composed predominantly of people visiting occasionally from with a wide catchment (11.7 km) to pursue a range of activities including dog walking, walking, exercising and other family activities. The vast majority of dogs were let off the lead and almost half also swam in the Mere. Visitors particularly valued the site's location, natural character and well maintained/easy circular walk.
- 7.2 Research into the site's qualifying features and ecological requirements indicates that Cole Mere is vulnerable to a range of factors that affect its structure, function and integrity. Housing levels are predicted to increase by around 11% within the 11.7 km visitor catchment during the plan period 2016 - 2036, which is likely to increase recreational pressure. Even if this increase is modest, it is likely to exacerbate existing problems and act in combination with other factors to generate significant adverse effects. In particular, elevated levels of recreation have the potential to cause excessive disturbance of sediments, increased problems associated with dog fouling and interference with the appropriate management of the site.
- 7.3 Impact avoidance measures in the form of on-site visitor management measures and off-site alternative greenspace are proposed. The results of the 2017 visitor surveys have been used to inform this work. The surveys carried out in 2017 can also be compared with monitoring surveys in future years, and/or similar studies at other sites.

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MAP 1 Site Location & Nature Conservation Designations

KEY

-  Cole Mere Site Boundary
-  Shropshire County Boundary
-  Special Area of Conservation (SAC)
-  Ramsar Site
-  Site of Special Scientific Interest (SSSI)

SCALE: 1:25,000 at A3

0 0.5 1 1.5 Kilometers



Ecological Planning & Research

CLIENT: Shropshire Council

PROJECT: Cole Mere Visitor Survey

DATE: May 2018

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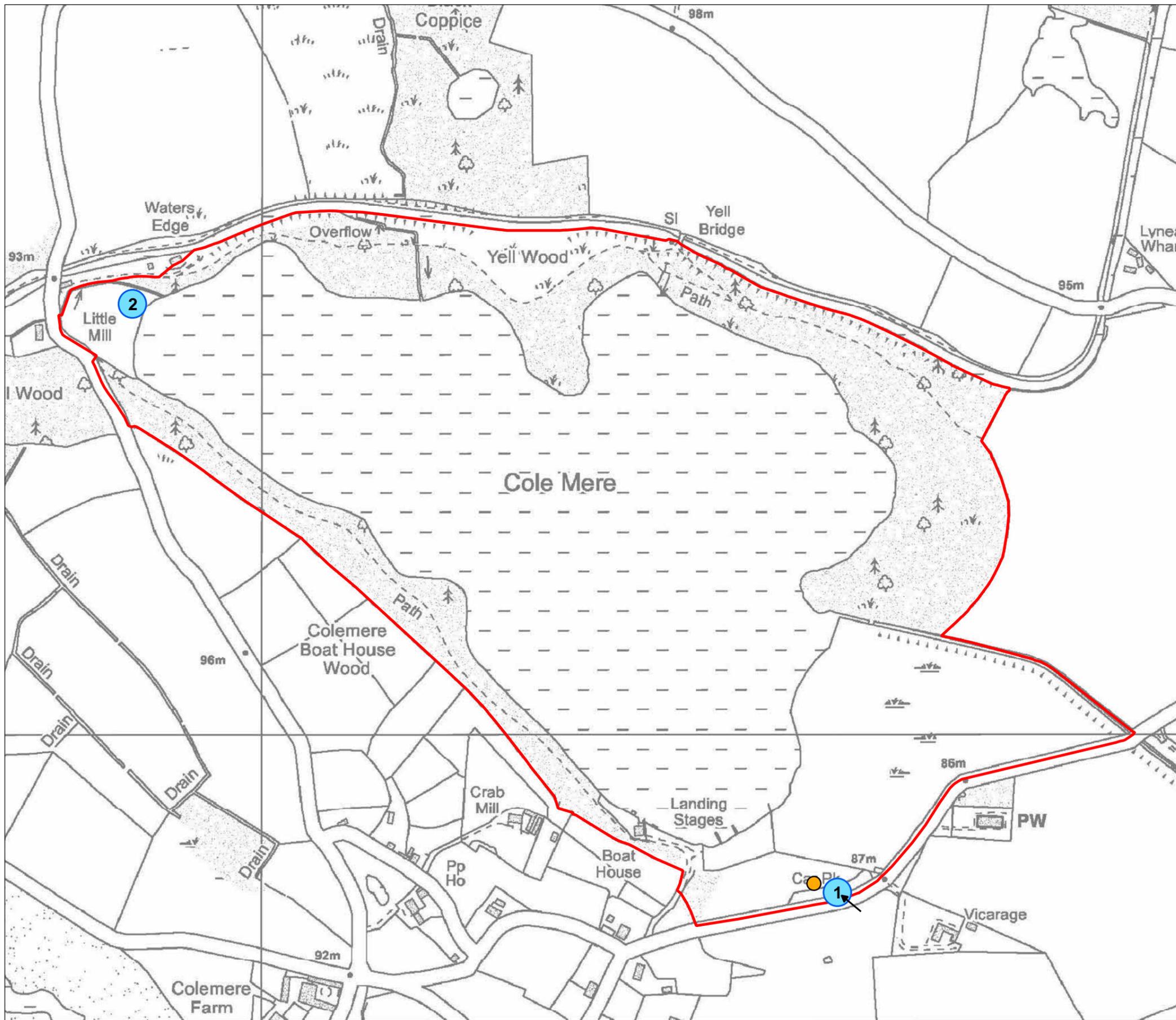
Credits: © OpenStreetMap (and) contributors, CC-BY-SA

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MAP 2 Access Points & Site Map

KEY

-  Cole Mere Site Boundary
-  Access Points
-  Automated Visitor Counter



SCALE: 1:4,280 at A3



Ecological Planning & Research

CLIENT: Shropshire Council

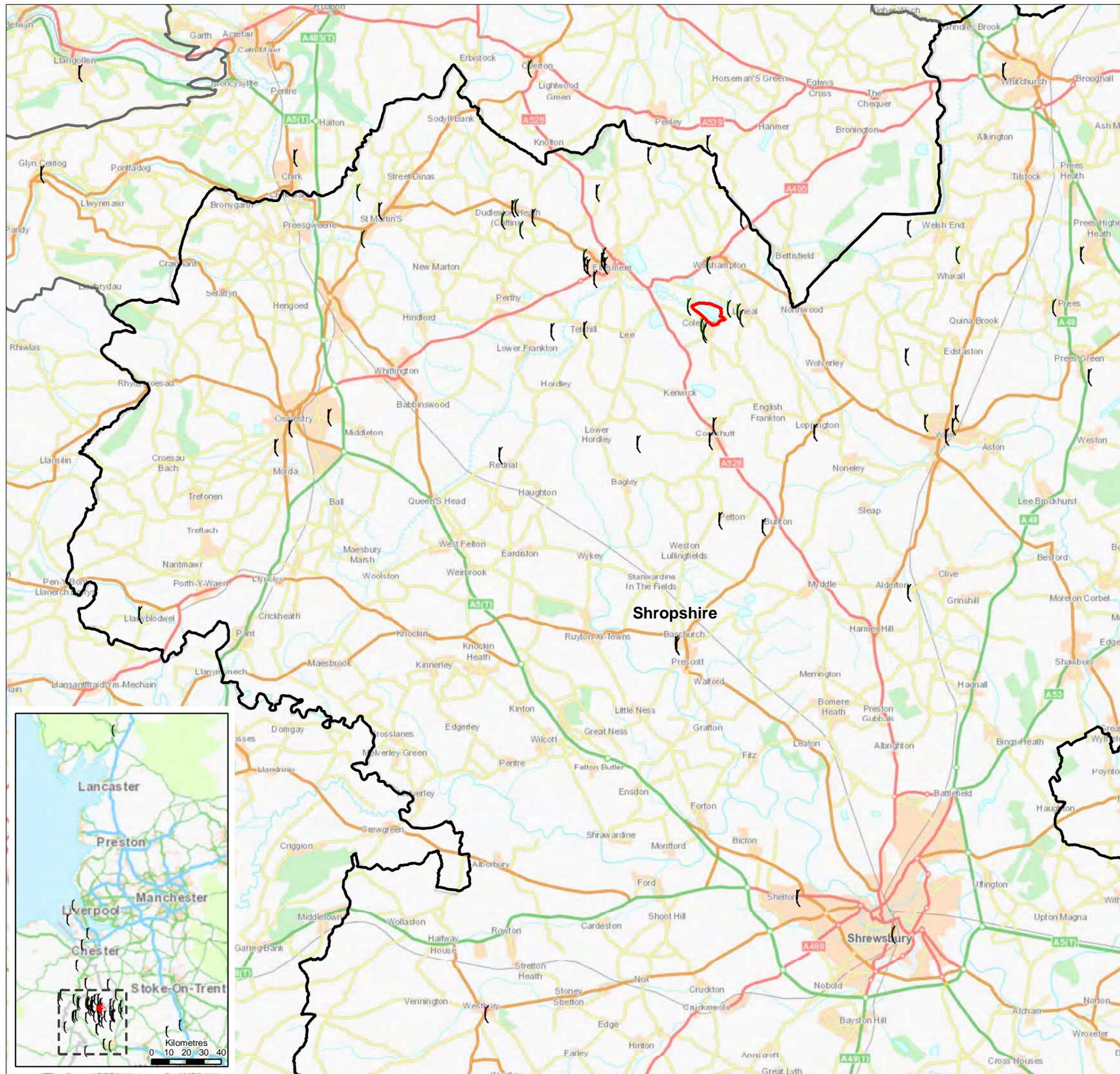
PROJECT: Cole Mere Visitor Survey

DATE: May 2018

Colemere B/W (1:6,000)

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MAP 3 Visitor Origins



KEY

-  Cole Mere Site Boundary
-  Shropshire Unitary Authority Boundary

Method of Travel

-  Bicycle
-  Car/van
-  Walk

SCALE: 1:130,000 at A3



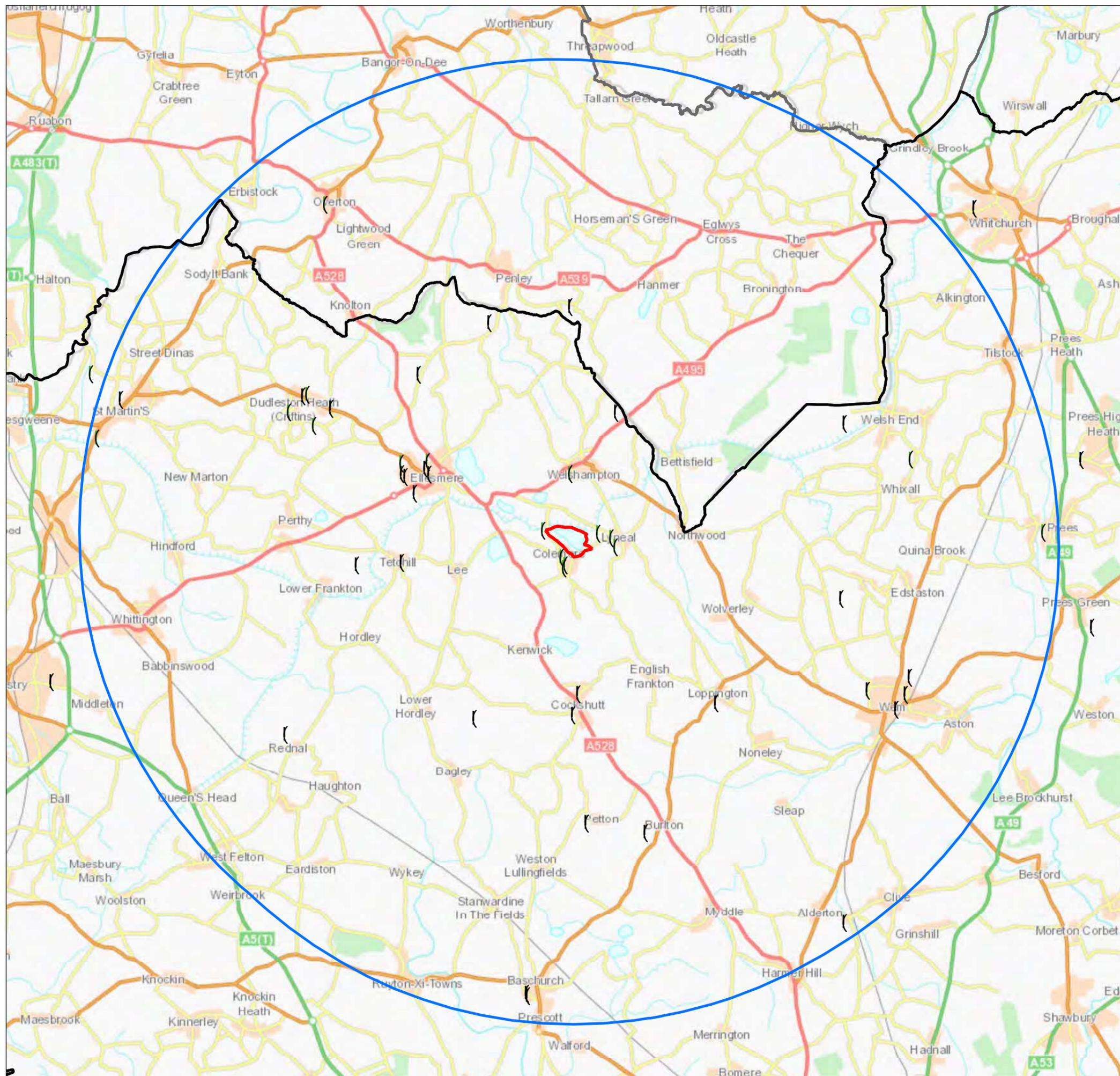
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PROJECT: Cole Mere Visitor Survey

DATE: May 2018

MAP 4 Indicative Visitor Catchment



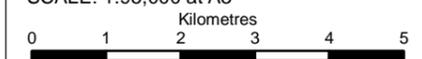
KEY

-  Cole Mere Site Boundary
-  Shropshire Unitary Authority
-  Indicative 11.7km catchment

Visitor Origins

-  Car/van
-  Walk

SCALE: 1:95,000 at A3



Ecological Planning & Research

CLIENT: Shropshire Council

PROJECT: Cole Mere Visitor Survey

DATE: May 2018



Colemere B/W (1:6,000)

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MAP 5 Walking Routes

KEY

- Cole Mere Site Boundary
- Routes walked (one group only)

Recreational Pressure

Low

High

SCALE: 1:4,250 at A3

0 50 100 150 200 Meters



CLIENT: Shropshire Council

PROJECT: Cole Mere Visitor Survey

DATE: May 2018

MAP 6 Potential Conflict Areas

KEY

-  Cole Mere Site Boundary
-  Location of Dogs Entering Water
-  Least Water Lily Records



SCALE: 1:7,000 at A3

0 100 200 300 400 Metres



Ecological Planning & Research

CLIENT: Shropshire Council

PROJECT: Cole Mere Visitor Survey

DATE: May 2018

Y:\Shropshire Visitor Survey\GIS\Cole Mere\Map6_Cole Mere_Conflict Areas_180518.mxd

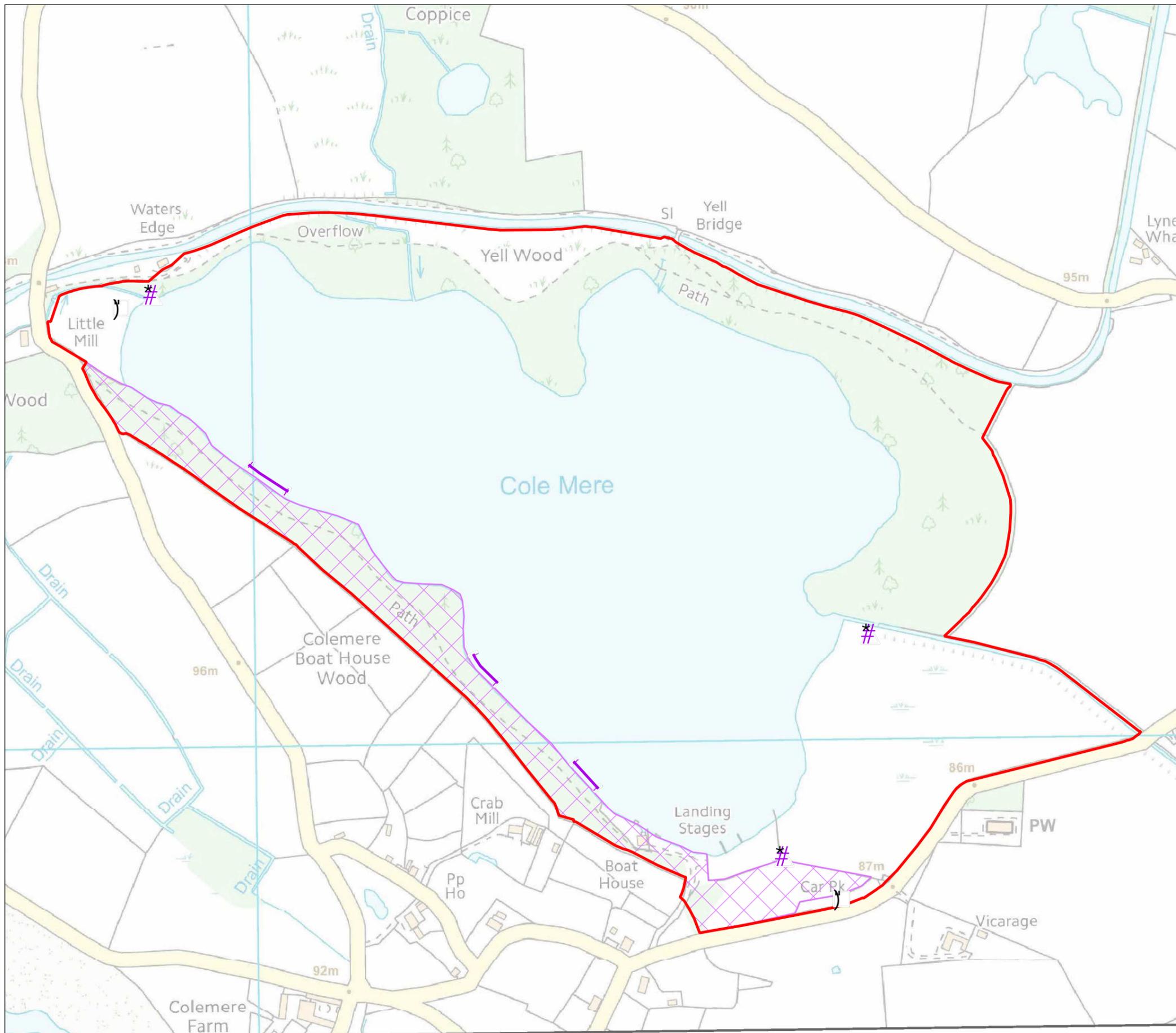
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MAP 7 Visitor Management Plan
Infrastructure Mitigation Measures

KEY

-  Cole Mere Site Boundary
-  Erect large notice boards
-  Dog swim
-  Dog waste bin
-  Provide increased seating/picnic tables and dogs offlead



SCALE: 1:7,000 at A3

0 100 200 300 400 Metres



Ecological Planning & Research

CLIENT: Shropshire Council

PROJECT: Cole Mere Visitor Survey

DATE: June 2018

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Appendix 1

Visitor Questionnaire

COLE MERE VISITOR QUESTIONNAIRE

READ OUT: "Hello. I am carrying out a survey on behalf of Shropshire Council to find out about local patterns of recreation and to help the Council manage this site. I would be grateful if you could spare a few minutes to answer some multiple choice questions....."

SITE – DO NOT READ OUT:

Cole Mere
Brown Moss

ACCESS POINT – DO NOT READ OUT:

(1*)
(2*)

* NOTE: Numbers refer to map location

Date in August/September 2017 – DO NOT READ OUT:

Sat 26th Sun 27th
Tues 29th Weds 30th Thurs 31st Fri 1st

Time – DO NOT READ OUT:

07:00-09:00 10:00-12:00 13:00-15:00 17:00-19:00

Weather conditions - DO NOT READ OUT:

Sunshine Cloud and showers
Sunshine and showers Heavy rain
Cloudy Other (write below)

**Q1. How many adults and children are present in your group, including yourself?
[Write number of people in group in each age category]**

Number of 0-16 year olds:		Number of 26-59 year olds:		
Number of 16-25 year olds:		Number of 60+ year olds:		

Q2. How many dogs have you taken for this visit? [If none, mark 0]

Number =

Q3. How did you get to this site today? [SINGLE CODE]

Walk Bicycle Other (write below)
Car/van Motorbike

Q4. Can you give the postcode of where you travelled from to visit this site? [This identifies location to street only]

	Postcode:	
No postcode but precise location/road name is:		
Just visiting: location of accommodation is:		

Q5. How long have you lived at this address?

	Write number of years:	
Not applicable/just visiting (tick):		

Q6. What was the main reason/s for your visit to this site today? [SINGLE CODE]

Dog walking	<input type="checkbox"/>	Improve health and exercise	<input type="checkbox"/>	For a family activity	<input type="checkbox"/>
Walking	<input type="checkbox"/>	It's my hobby	<input type="checkbox"/>	To learn something	<input type="checkbox"/>
Experience nature/ wildlife	<input type="checkbox"/>	Watersports/ sailing (<i>specify type below</i>)	<input type="checkbox"/>	Other (<i>write below</i>)	<input type="checkbox"/>
Bird watching	<input type="checkbox"/>				

Q7. Why have you chosen this site over others? [MULTI CODE]

Ability to let dog off the lead	<input type="checkbox"/>	Length & variety of tracks/paths available	<input type="checkbox"/>	Proximity to other facilities/features (e.g. car park, toilets, café)	<input type="checkbox"/>
Enjoy the look/feel of this site	<input type="checkbox"/>	It's close to where I live	<input type="checkbox"/>	Social interaction	<input type="checkbox"/>
Enjoy the wild/natural feel of this site	<input type="checkbox"/>	Access to water	<input type="checkbox"/>	Adventure	<input type="checkbox"/>
Wildlife/ birdwatching	<input type="checkbox"/>	Views of water	<input type="checkbox"/>	Other (<i>write below</i>)	<input type="checkbox"/>
Accessibility (car parking) etc.	<input type="checkbox"/>	Peace and quiet	<input type="checkbox"/>		
Feel safe using this site	<input type="checkbox"/>				

Q8. How often do you visit this site? [SINGLE CODE; CHOOSE CLOSEST ANSWER]

Daily/almost daily	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
Two-three times a week	<input type="checkbox"/>	Occasionally	<input type="checkbox"/>
Once weekly	<input type="checkbox"/>	First visit (skip to Q11)	<input type="checkbox"/>
Once or twice a month	<input type="checkbox"/>		

Q9. What time of day do you most often visit? [SINGLE CODE]

Before 9am	<input type="checkbox"/>	Between 12 and 2pm	<input type="checkbox"/>	After 5pm	<input type="checkbox"/>
Between 9am and 12 noon	<input type="checkbox"/>	Between 2 and 5pm	<input type="checkbox"/>	No particular time/varies	<input type="checkbox"/>

Q10. What time of year, if any, do you normally visit? [MULTI CODE]

Winter – (Dec, Jan, Feb)	<input type="checkbox"/>	Summer – (June, July, Aug)	<input type="checkbox"/>	Or...All times of year	<input type="checkbox"/>
Spring – (March, April, May)	<input type="checkbox"/>	Autumn – (Sept, Oct, Nov)	<input type="checkbox"/>		

Q11. How long was your visit? [SINGLE CODE]

Less than 30 mins	<input type="checkbox"/>	30 mins – 1 hour	<input type="checkbox"/>	Over an hour	<input type="checkbox"/>
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Q12. Where did you go during your visit? Draw neat path with arrows on MAP, show specific route walked/travelled, mark START and FINISH and PARKING location

Map Number:

Q13. If you have a dog(s), was it let off the lead? [SINGLE CODE]

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Don't have dogs	<input type="checkbox"/>	Skip to Q16
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Q14. Did your dog/s venture off any of the footpaths or into the water? [SINGLE CODE]

Yes - just off paths	<input type="checkbox"/>	Yes - just in water	<input type="checkbox"/>	Yes - both	<input type="checkbox"/>
Neither – stayed on paths	<input type="checkbox"/>	Don't know	<input type="checkbox"/>		

Q15. And did you venture off any footpaths or into the water? [SINGLE CODE]

Yes - off paths	<input type="checkbox"/>	Yes - in water	<input type="checkbox"/>	Yes - both	<input type="checkbox"/>
Neither – stayed on paths	<input type="checkbox"/>	Don't know	<input type="checkbox"/>		

Q16. If you or your dog(s) went into the water, can you show us where? Show location(s) with a cross X on MAP used for Q12

Map Number:

Q17. If you have a dog(s), did you use a dog bin on this visit? [SINGLE CODE]

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Didn't know there were dog bins	<input type="checkbox"/>
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Q18. Are there any changes you would like to see to this site, or comments you wish to make?

Q19. [COLEMERE ONLY] If a small parking charge was introduced to help fund the management of this site, would this discourage you from visiting? [SINGLE CODE]

Yes No Maybe Don't know

Q20. Do you visit any other open spaces in Shropshire for the same recreational purpose? [SINGLE CODE]

Yes Go To Q21 No Go To Q24 Don't know Go To Q24

Q21. IF Yes TO Q20: Please could you tell us the name of the main alternative sites (max 3) you visit, with a description of their location?

1.....
2.....
3.....

Q21a. Do you ever visit Stiperstones or Fenn's Wixall & Bettisfield Mosses Nature Reserves? [SINGLE CODE]

Yes - Stiperstones Yes – Fenn's, Wixall & Bettisfield
Yes - both No

Q22. How often do you tend to visit these sites? (if varies, state for main alternative site)? [SINGLE CODE]

Daily Every other week Occasionally
Two-three times a week Monthly First Visit
Once weekly

Q23. What are your reasons for choosing this alternative site? [MULTI CODE]

Ability to let dog off the lead Length & variety of tracks / paths available Proximity to other facilities / features (e.g. car park, toilets, café)

- | | | | | | |
|--|--------------------------|----------------------------|--------------------------|------------------------------|--------------------------|
| Enjoy the look and feel of this site | <input type="checkbox"/> | It's close to where I live | <input type="checkbox"/> | Social interaction | <input type="checkbox"/> |
| Enjoy the wild/natural feel of this site | <input type="checkbox"/> | Access to water | <input type="checkbox"/> | Adventure | <input type="checkbox"/> |
| Wildlife / birdwatching | <input type="checkbox"/> | Views of water | <input type="checkbox"/> | | |
| Accessibility (car parking) etc. | <input type="checkbox"/> | Peace and quiet | <input type="checkbox"/> | Other (<i>write below</i>) | <input type="checkbox"/> |
| Feel safe using this site | <input type="checkbox"/> | | | | |
-

Q24. If existing open spaces in Shropshire could be improved, or new ones created, which features/facilities would encourage you to visit them more?

READ OUT: That completes the interview. To check that all of the interviews that I do are genuine, our office staff will call back about 10% of the people that we interview. You will not be contacted for any other reason as a result of taking part. Please could you confirm:

(i) Your name: _____

(ii) Contact telephone number: _____

THANK AND CLOSE.

INTERVIEWER DECLARATION: I declare that I have carried out the interview with the named person, face-to-face, in accordance with the Market Research Society Code of Conduct.

INTERVIEWER INITIALS: _____

SIGNATURE: _____

Appendix 2

Summary Table

Entry/exit data	
Number of access points	2
Hours of survey	64
Groups/people recorded on entry/exit	197 / 347
Dogs recorded on entry/exit	120
Ratio of dogs to groups	0.6
Projected hourly / daily / annual visitation rates	7.5 / 89.4 / 32,600
Interview data	
Groups/people interviewed	102 / 213
Groups with at least one dog	56.9%
Age range	Under 16 (11.7%) 17-25 (7.5%) 26-59 (50.7%) Over 60 (30%)
Method of travel	Car/van (67.6%) On foot (28.4%)
Main reason for visit	Dog walking (47.1%) Walking (28.4%) Health/exercise (8.8%)
Reasons for choosing this site over others (top five)	Enjoy look/feel (34.3) Close to where I live (26.5%) Peace and quiet (17.9%) Other (17.6%) Length/variety of walks (13.7%)
Visitor Origins	
Average distance travelled by car/on foot	Car: 13.8km On foot: 8.9km
Core catchment	11.7km (75 th percentile; Shropshire residents only)
Temporal Patterns	
Visit all year round	70.6%
Weekday/weekend interviews	Weekday (39.2%) Weekend (60.8%)
Typical time of visit	It varies (32.4%) 9am to 12 noon (22.5%)
Visitation frequency (all groups)	Occasionally (23.5%) Two/three times per week (19.6%) Daily/almost daily (14.5%)
Visitation frequency (dog walkers)	Two/three times per week (22.4%) Daily/almost daily (20.7%) Once/twice per month (13.8%)

Visitor Behaviour	
Average length of route walked	With dogs: 2.6km Without dogs: 2.5km
Length of visit	> 30 minutes (97.1%) > 1 hour (37.3%)
Dogs off lead	86.2%
Dogs in water/off path	48.3% / 46.6%
People in water/off path	4.9% / 21.6%
Comments/Alternative sites	
Visit alternative sites	47.1%
Top three alternative sites	The Mere at Ellesmere Brown Moss Grinshill
Comments/changes to this site (top five)	Nothing More dog waste bins Maintenance Toilets = More rubbish bins = Pick up dog poo
Wish list for existing/new open space (top ten)	Peaceful/natural Dog friendly, off leads Toilets Parking Good path network Café/refreshments Free Pushchair/wheelchair friendly Views of water Dog waste/rubbish bins

Appendix 3
Consultation Draft Visitor Management Plan

Cole Mere Visitor Management Plan – Summary

Ramsar Qualifying Feature	Management Plan Objective	Condition in 2014	Predicted impact of increased recreational demand	On-site Mitigation Measures	Measurable targets (within Local Plan period)
Open Water, with a rich flora and invertebrate fauna	Restore aquatic/emergent vegetation and aquatic invertebrate fauna to favourable condition.	Unfavourable no change	Increased turbidity caused by dog and human activity in the water Increased interference with appropriate management	<p>Create and maintain dog swimming areas well away from likely Lesser Water Lily locations – near the car park and picnic area.</p> <p>Increase attraction of the car-park field and southern shore through provision of seating and improved paths.</p> <p>Erect permanent large notice boards: Explaining why site is special; Welcoming people and dogs, but explaining need to avoid certain areas; Explaining need for management.</p> <p>Recruit and train volunteers to ‘police’ dog restrictions at the site and explain management activities, with an emphasis on positive messaging.</p> <p>Publicise issues through website/newspapers/social media/guided walks.</p> <p>Review need for screening near known Least Water Lily locations.</p>	<p>No increase in number of dogs swimming near Least Water Lily locations.</p> <p>No increase in interference with appropriate management.</p>

Damp rush pasture in Yell Field	Maintain in favourable condition.	Unfavourable, recovering	Increased trampling of vegetation Increased fouling of vegetation by dogs	Maintain paths to very high standard. Provide dog waste bins with 'poo bags' at either end of vulnerable area. Erect notice boards, as above. Train volunteers, as above.	No increase in trampling or fouling
Alder Carr, with Greater Spearwort and the rare Elongated sedge	Restore to favourable condition.	Unfavourable, no change	Interference with appropriate management	Maintain paths to a very high standard. Erect notice boards, as above. Train volunteers, as above.	No increase in interference with appropriate management.

Cole Mere Visitor Mitigation Measures

Mitigation Measure	Priority	Cost (total over 5 years)	To be implemented by:
Erect large notice boards	1		
Recruit and train volunteers	2		
Create dog swims	3		
Publicity	4		
Upgrade paths through Yell Field and the Alder Carr	5		
Provide more dog waste bins near Yell Field	6		
Maintain dog swims	7		
Maintain paths	8		
Empty and maintain dog waste bins	9		
Support volunteers	10		

Cole Mere Monitoring Programme

Measurable Target	Baseline	Repeat Survey frequency and timing	To be implemented by:	Cost
No increase in number of dogs swimming near Least Water Lily locations.	Survey prior to implementation of mitigation measures (to be deduced from current survey info)	Once, to inform next Local Plan review		
No increase in interference with appropriate management of vegetation around the Mere and in the Alder Carr.	Ask rangers and volunteers	Once, to inform next Local Plan review		
No increase in trampling or fouling in Yell Field	Ask rangers and volunteers	Once, to inform next Local Plan review		