To: The Members of the **Thames Basin Heaths Joint Strategic Partnership Board**

A meeting of the **Thames Basin Heaths Joint Strategic Partnership Board** will be held at Council Chamber, Surrey Heath House, Knoll Road, Camberley, GU15 3HD on **Thursday, 19 September 2019 at 10.00 am**. The agenda will be set out as below.

AGENDA

Public Document Pack

9   **Investment Working Group**

To receive an update from the Investment Working Group.

10   **Hart, Rushmoor and Surrey Heath SPA Project Update**

To receive an update on the joint Hart, Rushmoor and Surrey Heath SPA Mitigation Project.

11   **Date of Next Meeting**

The next scheduled meeting of the Thames Basin Heaths Joint Strategic Partnership Board will take place on Thursday 30th April 2020 at 10am.

**Minutes of a Meeting of the Thames Basin Heaths Joint Strategic Partnership Board
8 March 2019**

Present:	Councillor Jonathan Glen, Hampshire County Council
	Councillor Mike Goodman, Surrey County Council
	Councillor Edwards Hawkins, Surrey Heath Borough Council
	Councillor David Hilton, Royal Borough of Windsor and Maidenhead
	Councillor Barbara Hurst, Rushmoor Borough Council
	Councillor Angus Ross, Wokingham Borough Council
	Councillor Chris Storey, Waverley Borough Council
	Councillor Chris Turrell, Bracknell Forest Borough Council
In Attendance:	Sarah Bunce, Natural England
	Julie Gil, Bracknell Forest Borough Council
	Michelle Leek, Natural England
	Anna Lucas, Hart, Rushmoor and Surrey Heath SPA Mitigation Project
	Jenny Rickard, Surrey Heath Borough Council
	Debbie Salmon, Rushmoor Borough Council
	Robert Sarfas, Hampshire County Council
	Jennifer Wadham, Hampshire County Council
Apologies:	Ann Conquest, Natural England
	Councillor Moira Gibson, Surrey Heath Borough Council
	Councillor Richard Billington, Guildford Borough Council
	Councillor John Edwards, Surrey County Council
	Councillor Gail Kingerley, Runnymede Borough Council
	Tina Lamour, RSPB
	Heather Lewis, Surrey Wildlife Trust
	Councillor James Radley, Hart Borough Council
	Andrew Smith, Natural England
	Marc Turner, Natural England

25   Vote of Thanks

The Board was informed that Councillor Moira Gibson had decided to step down as
Leader of Surrey Heath Council and would not be seeking re-election at the end of her
current term of office in May.

A statement was read out to the meeting on Councillor Gibson's behalf in which she
thanked Board members, advisory organisations and supporting officers for all they had
done to set up the Partnership and deliver the Board's strategic aims and objectives.

The Board moved a vote of thanks to Councillor Gibson expressing their gratitude for the
guidance that she had given to the Partnership over the years and in particular during the
Committee's early days as it was finding its feet.

26   Appointment of Chairman

RESOLVED that Councillor Hawkins be elected chairman.

COUNCILLOR HAWKINS IN THE CHAIR

27   **Minutes of Previous Meeting**

RESOLVED that the minutes of the meeting of the Thames Basin Heaths Joint Strategic Partnership Board held on 6th December 2018 be agreed as a correct record.

28   **Strategic Access Management Monitoring Project Update**

The Board received a report providing an update on the work taking place as part of the Strategic Access Management and Monitoring (SAMM) Project. The report summarised the project's activities and achievements since Board's September meeting and included updates on staffing and recruitment, warden activity, SANG visitor surveys, access to SPA land, educational work and monitoring activities.

Key highlights included:

- The new Education and Engagement Officer was now in post and the creation of a new education programme was underway.
- The Ground Nesting Bird Season had started on 1st March 2019
- 1,107 hours of wardening activity had been completed and 1,942 leaflets and guides had been distributed to visitors.
- Details of the decline in visitor numbers recorded by the 2018 visitor survey would be circulated.
- Development of the Thames Basin Heath Partnership website continued with the inclusion of a comprehensive directory of the SANG sites that could be visited, a Meet the Team section, links to partners' websites and the regular publication of blogs on a variety of subjects including promotion of different sites across the area, habitat management, the flora and fauna that could be found on the heaths and publicising key messages and engagement activities.
- The Greenspace on your Doorstep booklet had been rewritten to provide updated information, better photographs and information about new SANG sites. It was agreed that copies would be circulated to members.
- Following the success of Heath Week in 2018, work was underway to deliver Heath Week 2019 between 28th July and 3rd August 2019. The week would include guided walks, arts and crafts, themed activities and historical sessions. Partners had been asked to submit events for inclusion in the programme.
- Bird surveys had found a decrease in the number of Dartford Warblers recorded compared to 2017, from 556 to 266. A decrease that was attributed to the cold weather in March. The migratory nature of Nightjars meant that they were protected from the cold weather and their numbers had remained steady, 351 in 2017 compared to 366 in 2018. Woodlark numbers had fallen from 164 to 112 however, these were the least understood of the three species and the reasons for their fall in numbers was not fully understood. It was agreed that information relating to the proportion of the total UK population for each bird species these figures related to would be circulated.
- It was agreed that future reports would include more detailed survey results and a programme of work for the project team.
- It was agreed that District Authorities would provide updates on the information relating to visitor numbers and observed impacts on wildlife that they held for the SANGS within their remits.
- It was agreed that Hampshire Fire Service would be invited to the Board's next meeting to give a presentation on the advice they gave on fire reduction on the heathlands.

It was noted that whilst the project had initially been set up as a result of EU directives, the regulations had been subsumed into the UK Habitat's Directive and subsequently incorporated into UK law. Consequently SANGS would be unaffected by the outcome of Brexit.

It was reported that the hosting agreement that contracted Natural England to run the SAMM project on behalf of the Partnership would come to an end in 2020. The Partnership considered Natural England's experience to have been pivotal to the success of the SAMM project to date. It was agreed in principle that the hosting agreement with Natural England should be continued for an initial period of 5 years.

It was suggested that this would be an appropriate time to review the contract to ensure that it remained fit for purpose. It was agreed that the legal requirements for renewing the hosting agreement would be clarified and a report reviewing the Hosting Agreement and setting out a way forward would be brought to the Partnership's next meeting so that the matter could be progressed.

The Board noted the update.

29   **Finance Report**

The Board received a report setting out the current financial position of the Thames Basin Heaths Strategic Access and Monitoring (SAMM) project.

It was noted that £6million from the Endowment Fund had now been invested in line with recommendations from Arlingclose. Projections showed that at the end of the 2018/19 financial year the balance in the Endowment Fund was expected to be £4.578million with a total income for 2018/19 of £3.463million.

It was noted that whilst some partner authorities index linked their SAMM contributions it was not clear if all partner authorities did. It was agreed that the index linking of SAMM contributions would be taken to the Officer group for discussion.

The Board noted the current financial position.

30   **Investment Strategy Update**

The Board received a report providing an update from the Investment Working Group.

It was noted that £6million had been invested in three funds: CCL Property Fund, Kames Diversified Monthly Income Fund and Schroder Income Maximiser Fund. It was agreed that the Board would be provided with updates on the performance of these investments every six months.

It was agreed that the Working Group would discuss the development of an investment trigger mechanism to ensure that future investments were not unduly delayed.

The Board noted the report.

31   **Dates of Future Meetings**

It was agreed that the next meeting of the Thames Basin Heath Partnership Board would take place on Thursday 19th September 2019 at 10am.

Future meetings of the Board would occur in June and November with additional meetings scheduled as necessary.

NE Hosting of the SAMM project – Organisational costs

Renewal of hosting agreement

Schedule 1 of the SAMM agreement sets out in paragraph 11.4 the agreed costs for the project, including a hosting fee of £10,000 which is index linked and additional NE staff costs of up to £80,000 a year.

Historically very few staff costs have been reclaimed by the organisation. We have been billing the hosting fee (currently set at £10,160 since 2017) plus an additional £1421 in 2017/18 and £2666.37 in 2018/19 for management / staffing costs not covered by the hosting fee. Historically only the costs of direct line management were reclaimed over and above the hosting fee, but now that work recording has been implemented, all staff support costs will be billed going forward.

Hosting fee

- The hosting fee covers organisational costs associated with hosting the SAMM project. This covers central HR, IT, facilities and other corporate services, and finance costs.
- It is currently set at £10,160.00.
- For the next 3 year agreement term from July 2020 this will uplift to ~ £12,283
- This has been calculated using the Bank of England inflation calculator based on a base cost of 10,000 in 2011. The cost in 2018 (11,972.41) has been uplifted by an additional 2.6% to forecast the cost in 2019. This BoE 2019 figure will be used for the next 3 year agreement term. The actual inflationary figures will not be available until Jan 2020.

Additional Staff costs – SAMM team support received from core NE staff

In addition to core services, which are covered by the hosting fee, Natural England will also need to recoup direct staff costs associated with hosting the project, which are provided by local and National Staff in areas such as:

- Direct Line management
- Business management
- Technical input from lead advisers e.g. training, GIS support, planning lead
- Finance – accruals and billing
- Health and safety audit and compliance
- Technical systems support
- Legal advice and Land agent
- Staff sickness cover

	Cost at target rate
Pay Group	**Forecast cost**
Manager, Principal Specialist & Principal Adviser	£3,978.33
Team Leader, Senior Specialist & Senior Adviser	£961.00
Lead Adviser, Group Co-ordinator & Specialist	£1,502.37
Adviser	£1,539.88
Support Adviser	£277.38
	£8,258.97

Work recording has now been implemented and going forward, NE intends to bill for additional core NE staff time not included in the hosting fee which is spent supporting the SAMM project. This will mean that the hosting costs will increase to around £20,000 - £25,000 per annum, depending on actual staff resource used.

<u>Approval</u>

- Approval is sought from JSPB for Natural England to continue to host the SAMM agreement for a further 3 years based on the enclosed hosting fee and and staff costs.

- Approval is sought as soon as possible so that negotiations around contracts for land access agreements, staffing and accommodation can begin to cover the next agreement term.

- The above billing proposal fits in with what was agreed in the original SAMM hosting agreement.

<u>SAMM tariff</u>

The SAMM Legal Agreement was signed in July 2011 by the eleven Local Authorities which make up the Joint Strategic Partnership Board (JSPB). The project was implemented from 14 July 2011. Schedule 1 of this agreement is the Natural England Guideline Methodology (NEGM)

https://www.surreyheath.gov.uk/sites/default/files/documents/residents/planning/planning-policy/CIL/sammtariffguidance.pdf

It sets out the amount that should be collected per dwelling to fund the SAMM element of the strategy.

The tariff was set at £630 per dwelling (section 4.1) and it was agreed that Local Authorities should seek to endorse this tariff and implement mechanisms to collect it by October 2009. The tariff would be collected the relevant LPA and passed to an Administrative Body (Hampshire County Council) and the delivery managed by Natural England. The sum provides for £190 towards annual expenditure and £440 to the long term investment fund.

- Later in the guidance it states that the tariff will be reviewed as a priority to ensure that housing and cost assumptions are as accurate as possible: (Table 8 - capital fund - Income) this would entail:
- A 10% increase in tariff in 2011/12.
- The tariff subsequently increases every 5th year by 15%.

Based on the above, according to the guidelines in the SAMM agreement, the tariff should currently stand at £796.95. If we compare the actual Bank of England inflation rate of 2.6% over the period since 2011, this gives a figure of £754.26

JSPB board members asked at the last meeting whether this uplift had been implemented by the local Authorities. This was discussed at the JSPB Officers meeting on 18th June 2019 and it emerged that there was possible inconsistency with this, depending on whether indexation was applied to the s106 agreement, but in general the Local Authorities were still basing their calculations on the £630 standard. As the uplift has not been implemented it was agreed at the Officers meeting that a way forward needs to be investigated and agreed.

Given that each Local Authority is at a different stage in their local plan and a supplementary planning document would be necessary to implement this change, it is recommended that Natural England conduct a review on the income and expenditure of the project and issue new NEGM on the SAMM tariff and how to implement it going forward in close consultation with the Local Authorities and Administrative body. In order to do this, they would require accurate housing projections from each local authority for the period until 2025/26. The tariff amount should be set to ensure that the amount collected covers projected project costs. Section 2.4 of the legal agreement allows NE to issue a revised NEGM in light of these calculations.

It is Natural England's recommendation to JSPB that NE should conduct a review of the tariff and that all Local Authorities should send revised housing projections to Natural England by 15th November 2019 in order to inform a consultation with LPAs and Administrative body at the next JSPB officers meeting on the revision of the tariff. Approval is sought for this course of action.

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THAMES BASIN HEATHS
JOINT STRATEGIC PARTNERSHIP BOARD

Date: 9th September 2019

Subject: SAMM Project update

Report of: Strategic Access Management and Monitoring (SAMM) Project

Recommendations:

- To APPROVE the recruitment of a data warden for the project and restructuring of the wardening resource
- To APPROVE the publication of the SPA visitor survey report
- To NOTE the contents of the report on SAMM project activity
- To NOTE the contents of the SANG survey report
- To NOTE the contents of the People counter and Car park transect survey report.

Purpose of the Report:

To provide the JSPB with an update on SAMM project activity since the last meeting in March 2019.

Summary

This paper sets out for Members the SAMM project's activities and achievements since the last meeting in March 2019, recent monitoring work and plans for the next 6 months.

1. SAMM project staffing and recruitment

<u>Seasonal wardens</u>

1.1   After a successful recruitment, 6 new seasonal wardens started with the SAMM project on 1st March making up a total of 5.5 FTE between them. All completed the season.

<u>Year round wardens</u>

1.2   Following the resignation of senior warden Annie in May, The post for the vacancy for a new team leader has now been filled and we have welcomed Rob West to the team. He will be taking over all line management, health and safety and functional management from Project Manager Ann, who has been supported in the interim time in some of these responsibilities by Sarah Bunce (Comms Officer) and Michael Jones (Education and Engagement Officer).

There have been no other staff changes. The appended staffing document – Appendix 1 - shows current staff and their responsibilities and a proposed new overall cost-neutral structure.

1.3 The SAMM project would like to restructure the project slightly to shift the wardening resource slightly towards the summer to undertake SANG surveys and appoint a full time Data Warden to deliver the data collection, analysis and management within the project. The project has grown to be the largest mitigation project in the country and the need for data collection and analysis is becoming more pressing. We now have 63 SANGs that require monitoring, as well as day to day organization and collection of visitor monitoring data. Requests for data collected by the SAMM team are commonplace now from JSPB (around the natural capital of SANGs and comparisons of data with other projects) Local Authorities (around SANG use, visitor feedback, SPA visitor survey results etc.), and land managers (visitor pressure, access points, bird population data).

There are multiple benefits for the Data Warden post:

- More coherent workload within the team
- More detailed bespoke reports on SANG usage and visitor access for each Local Authority
- More capability to do in-house analysis of data already held
- More opportunity to collate and analyze data held by other organizations
- More capacity to collate natural capital benefits of SANG provision
- Significantly cheaper than using a consultant to collect summer SANG survey data
- Opportunity to investigate new monitoring techniques such as bioacoustics survey.
- A coherent assessment as to the effectiveness of the mitigation project

See **Appendix 1** for more detail on new proposed team structure, including role breakdown and costs. Approval is sought from the JSPB board for recruitment of a Data Warden and for this new structure ASAP.

2. Wardening and Delivery

2.1 The project currently provides a warden service on the SPA seven days a week from 07.00 to 19:00 (daylight hours permitting).

2.2 The updated warden output for the project for 2017- 2019 is set out below. The following table sets out the number of hours of warden activity delivered on the SPA during the period March – August 2019.

March 2109	Total hours wardened	702
	Number of interactions	753
	Number already spoken to	193
	Leaflets handed out	1000
	Number of dogs	679
	Number of dog walkers (5+)	1
	Average already spoken to	25.63%

April 2019	Total hours wardened	591.54
	Number of interactions	985
	Number already spoken to	323
	Leaflets handed out	1135
	Number of dogs	1020
	Number of dog walkers (5+)	31
	Average already spoken to	32.79%

May 2019	Total hours wardened	722.28
	Number of interactions	1940
	Number already spoken to	491
	Leaflets handed out	2962
	Number of dogs	1563
	Number of dog walkers (5+)	30
	Average already spoken to	25.31%

June 2019	Total hours wardened	477.75
	Number of interactions	1461
	Number already spoken to	297
	Leaflets handed out	1968
	Number of dogs	876
	Number of dog walkers (5+)	15
	Average already spoken to	20.3%

July 2019	Total hours wardened	558.25
	Number of interactions	1311
	Number already spoken to	427
	Leaflets handed out	1568
	Number of dogs	1041
	Number of dog walkers (5+)	21
	Average already spoken to	32.6%

August 2019	Total hours wardened	517.8
	Number of interactions	1466
	Number already spoken to	384
	Leaflets handed out	1551
	Number of dogs	971
	Number of dog walkers (5+)	13
	Average already spoken to	26.20%

2.3   Forms of engagement have gone beyond wardening on the SPA, such as through social media, blog posts, talks at colleges and workshops with schools. Furthermore, wardening on the SPA has become more effective through new engagement ideas such as mini pit stops; this is reflected in Figure 1. In addition to this, Figure 2 shows that interactions per hour have increased. In May 2019, 1940 individuals were engaged with, the highest month of the project to date. This month showed the highest number of hours dedicated to pitstops, with many being undertaken on the weekend at busy sites.

2.4 - Figure 1 number of interactions per hour vs event type

Number of interactions per hour in the 2019 summer season.

■ Normal wardening ■ Events ■ Pitstops
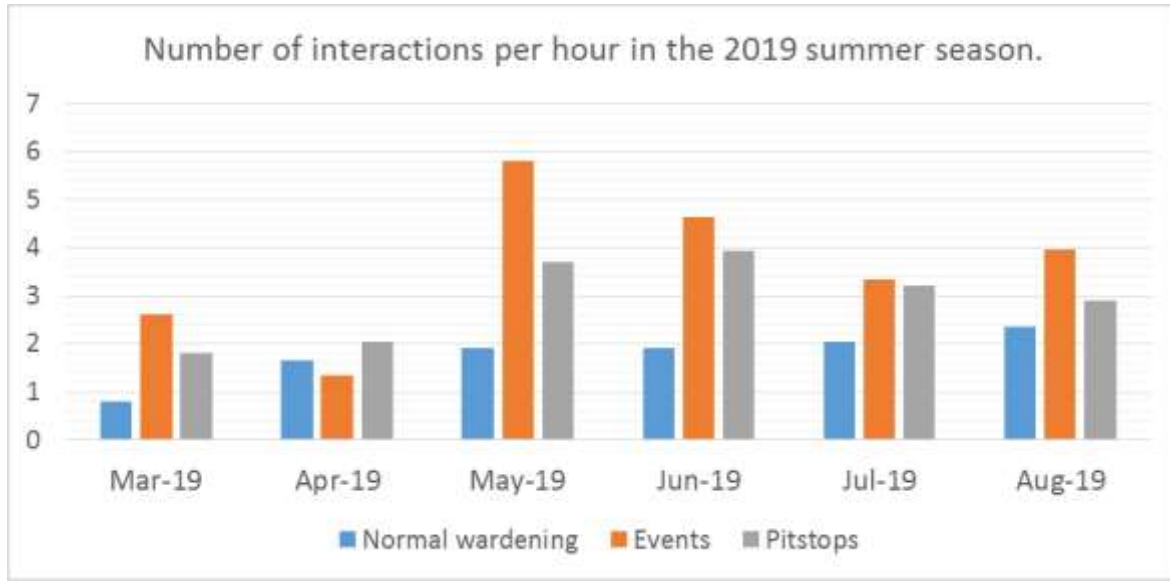
2.4.1 Figure 2 shows the number of interactions per hour throughout the 2019 summer season. The greatest number of interactions were seen at events, with a peak of 5.8 people/hour in May. The only month in which events did not display the highest interaction numbers was in April, and this was because few events were taking place across the SPA. Throughout the 2019 summer season, pitstops consistently showed a higher number of interactions per hour than normal wardening, with an average of 2.93 and 1.66 respectively. This suggests that events are most effective at engaging high numbers, though pitstops are more effective than 'normal wardening' when engaging those individuals already using the SPA. This data however cannot be used to measure the quality of an interaction.

2.5 - Figure 2 - Total interactions per hour

Total number of interactions per hour during the 2017-2019 summer seasons.
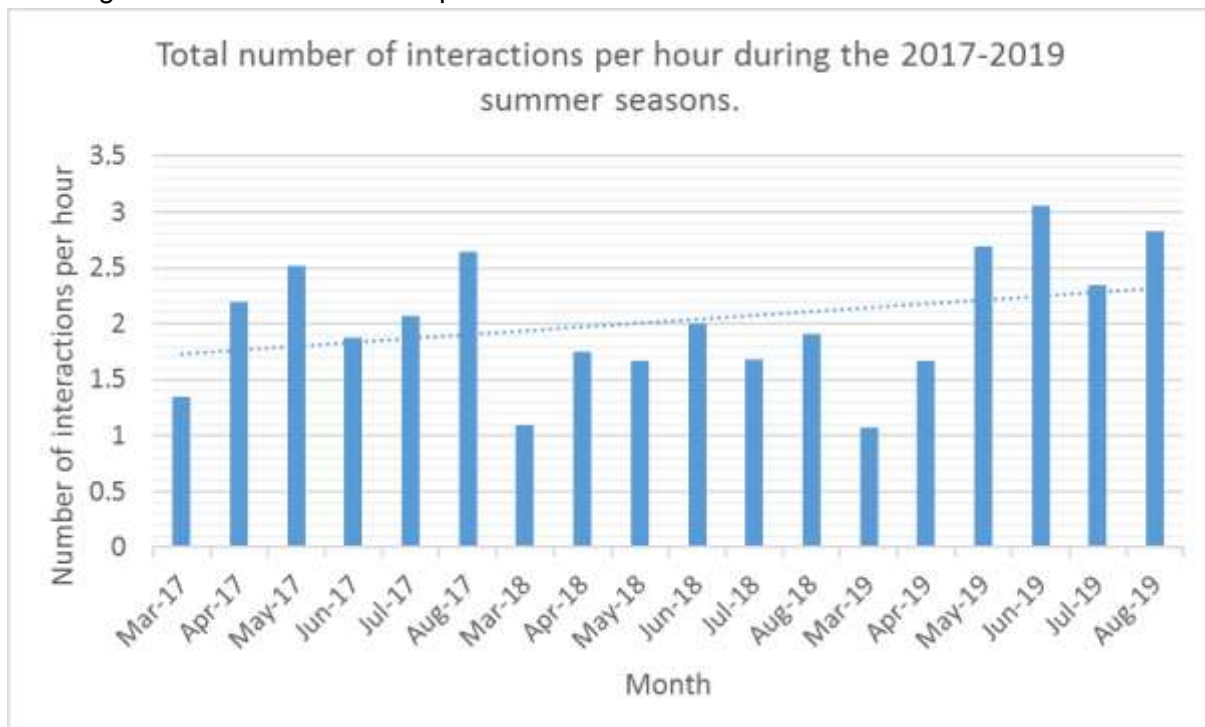
2.5.1 The total number of interactions per hour have remained relatively stable, though the data suggests an increasing trend. The three highest figures, 3.08, 2.93 and 2.69 have all been present in the 2019 summer season. This suggests that the introduction of pitstops, as well as the greater number of events attended in the 2019 season has resulted in a greater number of average interactions per hour. Whilst more hours were spent wardening the SPA in 2017, hourly engagement was lower, likely due a reduced people traffic when compared to pitstops and events.

2.6 – Figure 3 - % of interactions with people already aware of the project

Percentage of interactions with those already aware of project.
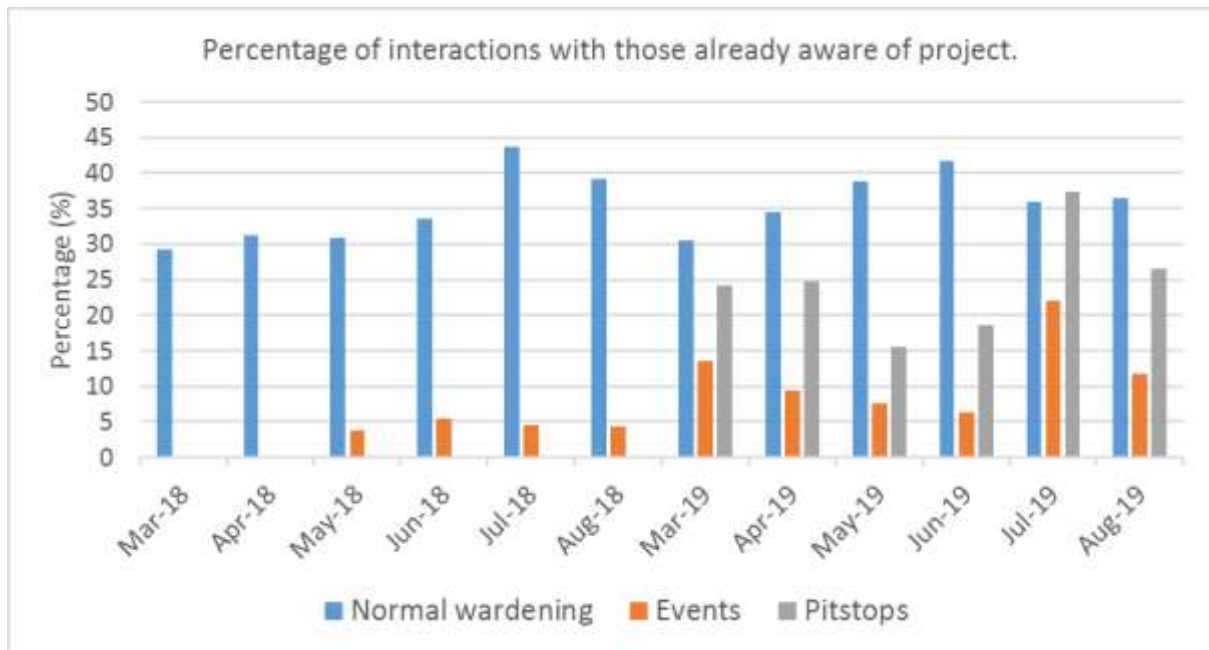
2.6.1 Figure 3 shows the percentage of interactions on the SPA with those that were already aware of the SAMM project. On average, 36.52% of individuals encountered whilst 'normal wardening' said that they were already aware of the project. Pitstops identified a lower percentage of individuals that said they were already aware, with an average of 24.5%. Additionally many pitstops have aimed a targeted approach, to set up in areas which are rarely wardened, or where people traffic is high and engage with all individuals using that location on a given day. The events information suggests that we are raising awareness with the general community of our project as this activity reaches the most people who have not heard of us before.

SANG Visitor Surveys

2.7 The results of the 2018 winter SANG surveys have been analysed and the report is appended to this paper.

Summer surveys have been conducted by the SAMM Wardens at three SANGs in order to analyse footfall, public opinion and usage during July and August 2019.

Approaching 200 surveys have been conducted across the sites, which took 47 hours of warden time in total. Data will be collated and analysed in due course.

The SANGs surveyed:

Lakeside Nature Reserve, Ash Vale, Aldershot [Guildford Borough Council]
Shepherd Meadows, Sandhurst [Bracknell Forest Council]
Naishes Wood at Crookham Park, Church Crookham [Hart District Council]

3.   Access to SPA land

3.1   There have been no issues or changes. Feedback from landowners remains very positive.

4   Communications, Promotion and Events
5
5.1   The website can be found at www.tbhpartnership.org.uk and continues to be used to promote our key messages.

The website content is designed to inform and inspire visitors about their local heathlands (including how to use them responsibly), to find out more about the wildlife we to have on our doorsteps and to promote usage of alternate greenspaces.

To this end, we have written and published a number of blogs over the spring and summer about a wide variety of topics: Heathland wildlife (including ground-nesting birds, series' on bird ID, dragonflies and reptiles), articles on preventing and reporting wildfire, conservation grazing, contributing to citizen science projects, participating in the Year of Green Action and school sessions.

5.2   The 2nd edition of the A5 'Greenspace on your doorstep' booklet has just arrived. It lists 62 SANGs, which are also listed on the website, along with a map. It has been completely updated, reformatted and revised, with fantastic new photos and at – a - glance feature icons and an additional 18 new entries since the 2017 version. It has just been launched on our Heathland Hounds group and will be given out by the wardens on-site and at the pit-stop events in SPA car parks.

5.3   Our Facebook page continues to actively spread our key messages and now has 814 followers (736 likes – up from 571 at the last meeting). We continue to use it to promote events (Heath Week etc.) and encourage people to interact with the continuation of #TBHFridayChallenge. We regularly share partner information and events.

5.4   Our Twitter account now has 536 followers (up from 481 at the last meeting). We continue to use this social media platform to spread our key messages and engage people about heathlands, SANGs and promote tweets by partners. In June, we participated in the Wildlife Trust's *#30DaysWild* campaign. Every day for the month, we shared posts designed to highlight our key messages, celebrate amazing wildlife, promote SANGs, and promote our education opportunities. The whole team actively contributed to an incredibly diverse collection of posts and we generated lots of interest.

5.5   We have used the Year of Green Action (YoGA) to further promote SANGs and encourage the public to connect with and take action to protect and enhance their local greenspaces. This has taken the form of a YoGA section on the website, including a list of all events on SANGs and a page detailing opportunities for people to volunteer with partners to help them carry out valuable conservation tasks.

        This resource is a great way to centralise all these opportunities that, in time, could be the place people go to look for walks, talks and events across the Thames Basin Heaths. It is also a great opportunity to boost attendances at events and increase awareness of what is going on within the partnership as a whole. We have also increased our efforts to promote partner events on SANGs by sharing/retweeting on social media.

5.6   Heathland Hounds, our dog owner focused initiative continues to evolve. It is used as a way of encouraging responsible behaviour on the SPA and also to promote the Alternate Greenspaces.

        Heathland Hound Facebook group membership is now 874 (up from 673 at the last meeting) and regular posting about responsible dog walking (on and off the SPA), promotion of SANGs, guided dog walk meet-ups, relevant information from partners as well as more general information about dogs and dog ownership have made this a go to group for locals. The group is fast becoming a trusted source of dog-related information.

        The Facebook group continues to be increasingly interactive, with a number of members actively posting about visits to our alternate greenspaces. Some of them are working their way round their local SANGs using our Greenspace on Your Doorstep booklet and providing reviews of their experiences. Having the wider community promoting these places for dog walking is certainly helping to raise the profile of them across the Thames Basin Heaths area.

        Heathland Hounds has assisted partners with their events. These have included leading guided dog walks at Wellesley Woodlands and Ash Green Meadows (Blackwater Valley's Dog Day) and one at Edenbrook Country Park with *Farnham Walkie Talkies*. Also we have attended 7 events across the SPA in our new Heathland Hounds livery and branding:

        https://www.facebook.com/groups/HeathlandHounds/748305735317721/

5.7   Throughout the season, we attended 21 events. The table below shows the data collected from the events we attended:

Hours wardened	Number of people spoken to	Number of people already spoken to	Number of leaflets distributed	Number of dogs
243.75	1428	79	2598	628

We attended 4 events on SANGs and to promote these greenspaces, and several local events to raise our profile within the communities living within the SPA boundaries. We used wildlife-themed crafts, to draw in children, allowing conversation with families about how they use their local heaths and the other greenspaces available locally. We have attended Yateley May Fayre, Hartley Wintney Village Fete, St John's Village Fete, Bisley Strawberry Fayre and Guildford goes Wild.

We led several Nightjar guided walks on the SPA: at Caesar's camp, Bracknell forest, Castle Bottom NNR, Hazeley Heath, Chobham Common and Ockham Common. These walks were open to members of the public, allowing them to experience a nightjar sighting with the safety of numbers on the heaths at night. These sightings are important for people to connect with rare heathland wildlife, and therefore feel compelled to protect it.

We attended a Fire Awareness Day at Hale Community Centre which was attended to spread the word about the dangers of wildfires, the damage they cause, and how we can prevent them.

We attended Heritage Day at Sandhurst Academy to spread awareness about the wildlife that the army share their training grounds with.

5.8 Heath Week took place from Sunday 28th July – Saturday 3rd August and built on the success of last year's inaugural event. During the week we ran twenty-six events over seven days, with a good spread across Surrey, Hampshire and Berkshire. The activities involved working with 18 partners. Events included a variety of natural history walks and talks, arts and crafts, dog behaviour, wildfire, meeting cattle and learning about conservation grazing. The week was an excellent way to showcase just how amazing heathland is and raise public awareness of what we can all do to protect it.

5.9 K9 Fire Patrol is a joint initiative with Surrey & Fire Rescue Service that has been initiated to encourage dog walkers to keep an eye on their local heaths. In return for recording time spent on the heaths, reporting any fires, fly-tips and anti-social behaviour and spreading information about what to do in the instance of fire, dogs are presented with a Hi-Viz jacket to promote the scheme. This jacket is a useful talking point in engaging other heath users around fire safety, providing the perfect opportunity to spread awareness about wildfires and the risk they pose to people, businesses and wildlife

So far, there have been more than twenty dogs (and their owners) sign up to the scheme. These people will provide extra pairs of eyes and ears on the SPA and help with the spread of positive messages regarding wildfire across the heaths.

5.10 We have launched regular Fire Fighting Friday pit-stops to spread key messages about heathland wildfires with the aim of reducing their incidence. These events also provide opportunities to dissuade people from being careless with fire (BBQs, cigarette disposal, fire play) and encourage them to ring 999 the moment they encounter a fire.

A number of these events have been supported by local fire and rescue services. Pit-stops have taken place at Lightwater Country Park, Brentmoor Heath, Horsell Common, Whitmoor Common, Barossa, Yateley Common, Caesars Camp and we have spoken to 325 people with 213 dogs in tow.

Almost sixty people have showed an interest in signing up for the K9 Fire Patrol as a result of these pit-stops

5.11   May saw the publication of the inaugural quarterly Thames Basin Heaths Partnership Newsletter. The aim of this web-based newsletter is to allow partners to disseminate information, celebrate achievements, request assistance, share knowledge and promote events.

The first edition had contributions from eleven partners and the second publication is due in September.

5.12   On 6th June land managers from the Access Management and Monitoring Partnership group met at Tweseldown Racecourse to learn about habitat management work that had been going on over the winter there. The work had been done on-budget under a Countryside Stewardship Scheme and had resulted in the re-colonisation of the site by all three Annex 1 bird species this spring, which had been absent in the previous few years. Key to this success was creation of suitable habitat, access management on site and defragmentation of the heathland area.

6   Education work

6.1   The new Education & Engagement Officer, Michael Jones, has been working with a number of schools and community groups with the aim of promoting the Thames Basin Heaths Partnership's key themes around responsible use of our heathlands, set around the primary message of raising awareness of three rare ground-nesting birds (Nightjar, Dartford warbler & woodlark).

Underpinning everything has been the drive to inspire as many people as possible to value heathland and, on a wider level, motivate them to get outside and love nature. This role promotes high level engagement.

So far, feedback has been incredibly positive and Michael has forged some good links with schools, groups and with partners.

6.2   School based education has been explored and Michael has been forging valuable links with the staff and students at Wildmoor Heath School – especially in Year 3 (Key Stage 2), where the class teacher had set aside a full topic for learning about heathlands. Michael and the class teacher formulated a scheme of work linked directly to the heathland that is adjacent to the school grounds (Wildmoor Heath, BBOWT). This was a perfect chance to find ways to weave heathland into a variety of National Curriculum strands, whilst providing high-quality opportunities to engage and enthuse children about nature and wildlife in general and the heathland on their doorstep. Over a number of lessons, a number of curriculum areas were covered– science, literacy, art, geography – and children created paintings, spells, persuasive writing and scientific sketches, learning how to identify and classify creatures and about threats to heathland wildlife after their exploration and investigation.

6.3   6 additional school sessions; whole school assembly, multi activity day and 4
        heathland guided walks have also been delivered, covering Key Stages 1 and 3 and
        Early Years Foundation Stage at 3 different schools.

6.4   Heathland Education for Scouts, Guides, Beavers and other community groups has
        also been delivered, following an assessment on how to create sessions that can be
        used to target different groups to get them engaged with their local heathlands.
        Working with various groups, Michael has trialed different sessions in order to gauge
        what activities might get a good take-up and also help us to spread our key
        messages. 10 sessions have been delivered to six different community groups;
        Guides, Beavers, Scouts, LinkAble group, National Citizen Service group and a U3A
        group. Activities have been outdoor learning sessions, litter picks, practical tasks and
        guided walks with a theme of learning about and protecting the heaths or connecting
        people with their local greenspace (SANG).

7   SPA and SANGs Monitoring

7.1   The report summarizing the results of the Automated People Counter Data is
        appended to this paper.

7.2   The Project continues to undertake monthly car park transects across the SPA area,
        and the project is now in the third year of undertaking this work. The report
        summarizing the results of the Car Park count data is appended to this paper.

7.3   The SPA bird data for the year ending 2018 is as follows:

**Estimated totals of Annex 1 Bird Territories on the Thames Basin Heaths SPA and
Peripheral Sites, 2006-18.**

Survey year	2006	2007	2008	2009	2010	2011	2012	2013
Nightjar	320	313	298	296	326	337	320	325
Woodlark	216	229	180	157	159	161	202	135
Dartford W.	389	529	633	61	38	47	87	118

Survey year	2014	2015	2016	2017	2018
Nightjar	355	313	332	351	**366**
Woodlark	155	147	124	164	**112**
Dartford W.	292	457	430	556	**265**

7.3.1   Nightjar numbers continue on the upward trend recorded 2015-17, the 2018 total of
        366 being the highest since monitoring began in 2003. Nightjars are more diverse in
        their habitat requirements than either of the other two Annex 1 species and the mix of
        heather, bracken, birch and pine scrub found on the TBH sites provides plenty of
        suitable nesting opportunities. The species is particularly vulnerable to predation and
        disturbance so that recreational use of many of the sites by dog walkers represents a
        particular threat. Historically, the SPA Nightjar population has remained more stable
        than the other two Annex 1 species. This may be because Nightjars spend their

winters in sub-Saharan Africa and are therefore not subject to pressures caused by harsh winter conditions in this country.

7.4 Although the downward trend in Woodlark numbers over the 2014-16 period was reversed in 2017, 2018 saw a continuation of the decline with a 32% fall from an estimated 164 territories in 2017 to just 112 in 2018. This decline may be due to habitat availability and quality, availability of food, disturbance and a range of other factors. Woodlarks require areas of bare ground near to woodland as an ideal habitat type. Operations such as scrub clearance and/or carefully controlled winter burning with follow-up grazing are ways of creating and maintaining optimum habitat for Woodlarks. It is possible that the 'Beasts from the East' led to a fall in numbers. Coming in February/March, at the end of the winter and coinciding with the start of the Woodlark breeding season, the very low temperatures could have led to the loss of some birds, or poor breeding condition at the beginning of the season. Woodlark numbers are going down in other parts of the country to the extent that the national Rare Birds Breeding Panel, after removing the species from its list, have now reinstated it.

7.5 Dartford Warbler's preferred habitat is mixed heather and gorse. After substantial growth in the Dartford Warbler population following the harsh winters of 2008/09 and 2009/10, the 2018 count of just 265 territories represents a setback in the species' recovery. Most probably the two 'Beasts' were again responsible. Although these spells of bad weather were both short, temperatures were very low and caught the birds at their most vulnerable in the hungry gap between winter and spring. It is possible that smaller sites, where slight population increases were recorded last year are less exposed than the wide open spaces on the larger ones, where there were heavy declines.

8 Looking forward

8.1 SAMM warden Nick Izard is in the process of setting up a SANGs working group to produce a SANG Guideline document, which is intended to supplement the site quality checklist which developers use when designing a SANG. The guidelines are aimed particularly for new private developments. The document will work to enhance the quality of SANGs by providing guidance for the production of high quality information boards, site layout, maintenance plans and ecological practices.

8.2 The project intends to conduct 12 SANG surveys over the winter period.

8.3 Once the hosting agreement is renewed the project manager will be reviewing and renewing all existing agreements for access, accommodation, staffing and other resources for a further 3 year term.

8.4 We intend to have a busy winter promoting SANGs and engaging with dog walkers through Heathland Hounds and giving out our brand new SANGs booklet.

8.5 We will be working with the Natural England behavioral insights team on a controlled trial to research the most effective language and means to affect behavior change and spread our project messages. Global behavior change experts will work with us to determine how we frame our messaging so that our communications have maximum impact. This is to build on the success that we have had in the last couple

of years of telling engaging stories which has led to better interactions and proliferation of our messages. The research will be used to inform us on which strategies are most effective at affecting behavior change. It leads on from our work with the behavioral insights team who have published this document, which we have already started to implement. https://publicinterest.org.uk/nature-toolkit/
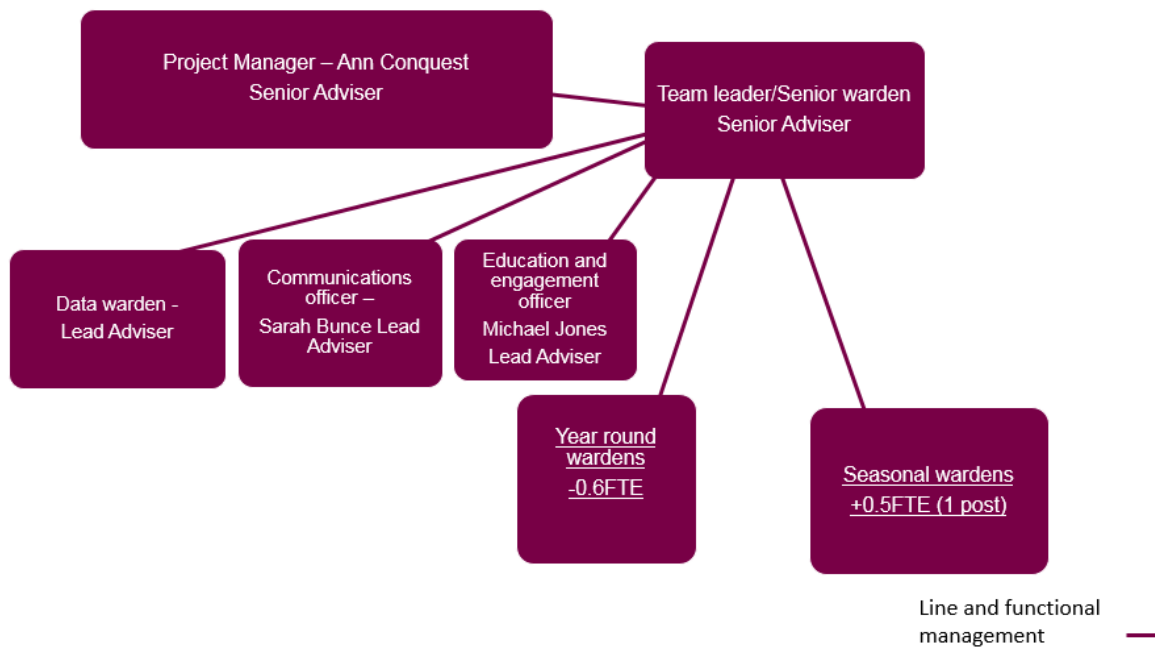
8.6   After consulting with personnel from a number of Fire Services*, the Education and Engagement Officer, Michael Jones, has now completed a session for a heathland wildfire awareness assembly and PHSE lesson, so if any of the partners know of any secondary schools who would benefit from and/or be interested please let him know. The session – aimed at Year 8 students – will introduce the group to their local heathland (what lives there and why it is special) and deal with the causes of wildfires and consequences of them for wildlife and people, including those who start them. The ultimate aim of the session will be to reduce the incidence of fires caused by carelessness across the SPA. Ultimately, this will be targeted to potential problem schools.

         * Including Phil Cliff (Community Engagement Officer) at Rushmoor Fire Station, Judy Rice (Education Manager) at Hants Fire & Rescue, Neil Tanner at Woking Fire Station.

8.7   Judy Rice has been provided with some information specific to heathland wildfire which she will incorporate into her schools fire safety and arson education programme – This will be delivered all across Hampshire to Year 8 students once an update is completed.

8.8   NE is currently exploring a joint working initiative in the Wealden Heaths area with East Hampshire District Council and Whitehill Town Council where there is an opportunity for a SAMM warden resource to be shared to cover a short period of 2-3 years until a hosting body for the monitoring aspect of their SAMM funding is secured. All funding will be appropriated carefully to ensure that neither project subsidizes the other if this does come to fruition.

Appendix 1 - SAMM team staffing change proposal August 2019

Approval is sought to change the staffing structure of the SAMM team to better reflect workload and responsibilities.

Following the resignation of the senior warden NE has taken the decision to replace this post at a higher grade, which better reflects the responsibility of the role and is more sustainable going forward in order to make sure that the project continues to fulfil its responsibilities in a healthy and safe way.

A new, alternative cost-neutral structure is proposed for the wider team which will better reflect current staff responsibilities, result in a more sustainable management workload going forward and address the increased summer workload now that a larger number of SANGs are maturing. A new team leader at a higher grade is now in post and this paper proposes the introduction of a data warden at a lead adviser grade and slight restructuring of the wardening resource. The data warden role will replace the need for the project to outsource data analysis work, saving between £19,000 and £25,000 annually from the programme spend. The changes proposed are therefore cost neutral to the project and will result in significant wellbeing, efficiency and opportunity gains.

Structure in March 2019

New proposed structure

Proposed change to roles:

Role	Current approved FTEs	Proposed FTEs	Change in FTEs
Project manager / team leader (SEO grade)	1.0	1.8	+0.8
Senior/Data Warden, Comms officer and Education officer (HEO grade)	3.0	2.68	-0.32
Year round wardens (EO grade)	5.0	4.4	-0.6
Seasonal wardens (for 6 months so half FTE – six seasonals currently) (EO grade)	3.0 (6)	3.5 (7)	+0.5 (+1)
Total			**+0.38**

Cost change:

Total cost of roles per annum at 2019/20 pay scales:

Role	Current cost at 19/20 pay scales	Proposed cost at 19/20 pay scales	Change
Project manager/ Team leader	£40,939	£73,690.93	+£32,751.53
Senior/Data Warden, Comms officer and Education officer	£97,985.47	£87,388.66	-£10,596.82
Year round Wardens	£139,081.73	£122,299.72	-£16,782.01
Seasonal wardens	£81,586.69	£95,184.47	+£13,597.78
Total	£359,593.30	£378,563.78	+£18,970.48

The proposed costs will be additional costs to the staffing budget. The team leader post is necessary to make staff management more coherent and relieve excessive ongoing workload pressure on the project manager. It will also allow the Comms officer and Education officer to focus completely on their core roles, maximising their delivery against these key work areas. The management responsibilities currently being fulfilled by the lead advisers is above their pay grade and a team leader role will ensure that all the management and Health and Safety responsibilities are being carried out by the appropriate grade.

The Data Warden is proposed to co-ordinate the Access Management and Monitoring that the SAMM Project does and analyse this data within the project thus saving externally commissioned data analysis. This currently costs £19,500, which will be saved annually from the programme spend. The increased wardening resource during the summer offsets the data collection time for SANG surveys. Sufficient staffing will be present over winter to complete winter surveys. This new proposed structure is supported by NE management as a cost neutral solution for the SAMM team.

Appendix 2 – SAMM staff – current roles and responsibilities

Green text: proposed responsibilities to be replaced by new team leader, Rob West
Blue text: proposed responsibilities to be replaced by new data warden – in addition, this role will include data analysis work currently undertaken by consultants.

Project Manager- Ann Conquest

Project management
- SAMM strategy – legal framework and hosting agreement. Effectiveness of approach.
- Business management – budget setting, staffing and logistical resource, budget management
- Finance – Billing. Liaison with Hampshire County Council and NE management re: finance including reporting on SAMM spend against budget.
- Responding to MP letters, FOI requests and challenging enquiries
- Large value procurement – drafting tender specifications, spending controls and signoff procedures, invoicing, contract negotiation and delivery.
- Negotiating and renewing access agreements with all landowners
- Governance and audit – risk and asset registers, HMRC compliance
- Estates management (accommodation) - H and S compliance, negotiation of lease, billing and landlord relationship
- GIS work for access agreements and SANGs
- Building links with similar projects

Reporting
- Produce JSPB reports, attend meetings and answer queries
- Attend, present at JSPB officers meetings, and answer queries
- Chairing and organisation of AMMP meetings
- Quotes and tenders for data analysis, such as SANG and SPA visitor surveys, SPA bird survey
- Collating data analysis from surveys for reporting
- Liaison with Local Authorities re: data collected by project
- Collating externally collected evidence – e.g. SANG people counter data
- Gathering together evidence internally and externally collected such as by universities to inform the strategic approach

Management
- Line management of 3 Lead Advisers and the 6 year round wardens.
- Objective setting and performance management of staff. Performance verification and reporting.
- Overseeing Health and safety and wellbeing
- Setting personal development plans
- Resolution of more complex management / HR issues for all staff, including seasonal wardens
- Recruitment and leaving administration

<u>Senior Warden- Annie Osborn – (currently approved as part of the wardening resource)</u>

<u>Day to day functional management of wardens</u>
- Induction and Practitioners' guide (instruction manual for new wardens)
- Produce rota for the team to ensure even spread of wardening across sites and reactive wardening to information from surveys, the public and landowners.
- Event co-ordination
- Health and safety – risk assessments, policy and procedures, reporting and investigating.
- Plan and lead team meetings
- Training and development organisation, including mandatory training
- Expenses
- Wardening support/mentoring

<u>Organisation of monitoring</u>
- People counters – Organising installation of counters, downloading and collation of data
- Car park transect survey – calendar and organisation of rota
- SANG visitor surveys – survey preparation and format, determine sites, organise staffing
- Warden logs – collation and reporting

<u>Organisation of wardening tools and equipment</u>

- Tools login, maintenance, registering and deregistering and audit of tech equipment e.g. iPads, Phones, laptops, satnavs, people counters.
- Development of new ways of working to increase efficiency e.g. apps – investigation, programming and training of team. (such as our new survey 123 software)
- Vans – overseeing servicing, vehicle checks and logs
- Equipment – maintenance, inventory and storage
- Small procurement of wardening equipment.

<u>Communications Officer – Sarah Bunce</u>

<u>Communications Lead role:</u>
- Comms strategy, branding of TBH and Heathland Hounds
- Co-ordinate warden led projects: Heathland Hounds, wild about the heaths, #30 days wild
- Organisation of Heath week
- Production and procurement of pitstop/display materials such as posters, boards etc.
- Production of all material for Leaflets
- Facebook lead – co-ordination of stories from wardens, TBH Friday Challenge and original posts
- Website – publishing of SANGs updated listings, warden blogs and maintenance of site.
- Media enquiries
- Printing and warden support for events and pitstops.
- Small procurement of comms related equipment and leaflets.

<u>Management</u>
- Management of 3 seasonal wardens including support, performance, development
- Interview and induction of new wardens

Education Officer – Michael Jones

Education work

- Scope and direction of education work
- Links and liaison with partners delivering education
- Links with local schools and development of curriculum based lesson plans
- Delivery of assemblies, lessons and field visits on Annex 1 birds / heathland
- Work with scouts/guides and other community groups
- Developing resources
- Safeguarding procedures, Health and safety around role
- Developing links with fire service and police to share resources and information
- Training and development re: outdoor learning and engagement
- Opportunities re: Year of Green Action #IWill, for SANGs promotion
- Training of team during induction
- Blogs and updates on website around education work

Management
- Management of 3 seasonal wardens including support, performance, development
- Interview and induction of new wardens

Wardening team

Public engagement
- Wardening on site
- Attendance at events and fayres
- Running of Heathland hounds group on Facebook and Twitter as well as HH guided walks
- Twitter posts and photos such as #30dayswild
- Facebook direct messages and developing/publishing FB posts
- Developing initiatives to engage wider audiences
- Guided walks and other events throughout the year such as during Heath Week
- Writing Blogs
- Producing resources for use at events such as worksheets, illustrations etc.
- Producing nature notes for display on SPA sites to engage with site users
- Promoting SANGs through events and e.g. nature trails

Partner working
- Liaison with landowners about issues such as livestock, events, access and management
- Partner working and engagement during the winter – working alongside volunteers
- Producing an AMMP newsletter to enable partners to share ideas and expertise
- Organising SANG managers working group to produce guidance on SANG design and implementation for developers.
- Feeding back to Local Authorities about SANG surveys
- Organising events for heathland managers to share best practice
- Administration around events

Monitoring
- Downloading of people counter data
- Completion of car park transect and SANG surveys

Other
- Training for role, such as induction, manual handling, first aid, site safety,
- Production of site risk assessments
- Carrying out vehicle checks and logs for vans
- Warden logs, work administration

Additional responsibilities/opportunities for a new Data warden - not currently resourced:

Data analysis work – such as analysis of the SANG surveys and other project data.
Collation of information from each Local authority of information on visitor numbers, the benefits to wildlife and biodiversity arising from SANG.
Collecting data that could contribute to monitoring of SANGs using new technology like Bioacoustics.

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Thames Basin Heaths SANG Visitor Survey Analysis 2018

Chris Panter

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Summary

This report summarises the results of visitor surveys conducted by the Thames Basin Heath Partnership on a subset of SANG sites during winter 2018.

Visitor surveying involved tally counts and face-to-face questionnaires. Tally counts were conducted to record the number of people passing at each discrete access point and understand visitor footfall. Interviewing of site users yielded a wide range of data on visitors' activities, visit patterns, likes and dislikes, other places visited and point of origin (home postcode).

Surveys were conducted at 14 sites for a total of 252 hours. This used a standardised methodology with 12 hours on a weekday and 6 hours on a weekend, spread evenly over three 2-hour surveying windows of; 8:00-10:00, 11:00-13:00 and 14:00-16:00.

Across all survey locations a total of 2,737 people were recorded during the 252 hours of surveying - an average of 10.9 people per hour passing surveyors (i.e. entering and leaving). The number of people per hour (pph) was typically higher at weekends than weekdays; an overall average was 9.5 pph on weekdays and 13.6 on weekends. At individual sites, the totals ranged from 501 people (27.8 pph) at Heather Farm, to 47 (2.6 pph) at Timber Hill. Using the two-hour survey session totals for each site we observed clear differences between sites, weekdays and weekends, but not the different times of day.

In total, 706 interviews were conducted and site totals ranged from 16 at Timber Hill to 112 at Heather Farm. Interviews could be conducted with lone visitors, or single members from a party of visitors. The average number of people in an interviewee group was 1.5 people per group and consisted of 0.1 minors per group, 0.3 over 65's per group and 0.9 dogs per group. Typical number of dogs per group was always above 0.7, apart from at Timber Hill (0.5 – typically half of interviewees without a dog). The average number of minors was low at most sites, except for Popes Meadow where this was 0.3 minors per groups – roughly one third of interviewed groups.

Almost four in five interviewees were dog walkers, 79% of interviewees, followed by 12% walkers and 3% outing with the family. Dog walking was the main activity at all but one site (Timber Hill) and ranged from 50% at Timber Hill to 95% at Dilly Lane.

Visit patterns of interviewees were examined and a typical visit duration was estimated to be around 50 minutes – 25% of interviewees stated they visited less than 30 minutes and 57% between 30 minutes and 1 hour. Visit frequency was estimated to be around 189 visits per year - 34% of interviewees visited 1 to 3 times a week and 21% daily (increasing to 31% examining those who visited daily or more than once a day). Sites with a high percentage of frequent visitors were Dilly Lane and Hare Hill, compared to very infrequent visitors at Heather Farm and Horseshoe Lake. Overall, three quarters of interviewees arrived on site by

car. The two sites with the highest percentage of visitors on foot (>90%) were Dilly Lane and Hare Hill.

Using interviewees' postcodes, we observed that 98% of interviewees were residents of the 11 local authorities which are in the TBHP. The mean distance between interviewee's home and the survey point was 3.8 km, but half lived within a 1.7km radius (median value) and three quarters within 3.7 km (Q3, 75th percentile value). However, these varied values greatly between survey sites; median value ranged from 0.4 km at Hare Hill to 4.1 km at Heather Farm. Local knowledge was key in how visitors became aware of the sites, with word of mouth and proximity to the sites the main ways.

Interviewees were asked to state their reasons for visiting the current site and across all sites the main reason was that sites were close to home, given by 35% of interviewees. This was followed by factors for dogs; they fact that visitors could let the dog off lead (133 interviewees, 19%) and the site being good for dogs (130, 18%). At individual sites, the fact the site was close to home was the main reason at eight of the fourteen sites.

Ratings given by interviewees highlight some sites with issues in regards to paths, parking and site quality for dogs. Lower ratings for paths were noticeable at Chobham water meadows and Hare Hill, for parking at Dilly Lane and Timber Hill, and for dogs at Timber Hill. Sites with low ratings often had issues which were again mentioned in the suggested improvements from interviewees. Most common improvements given were; better paths, more dog poo bins/dog fouling issues, more parking, new or better fencing, and more paths/choice of paths. However, it should be noted that overall ratings were generally positive and around a third of interviewees thought no improvements were necessary.

The SANG sites used represent one of a pool of local sites used by the visitors. The most commonly named alternative sites given by interviewees were: Horsell Common (8%), Chobham Common (6%), Virginia water (5%) and Cabbage Hill (3%). The alternative sites were categorised as to the type of sites they represent. Using the first named alternative sites, 29% of interviewees named a SANG site, 34% named a SPA site and 38% named other sites. The reason interviewees chose these sites was most frequently for variety (21%), followed by the fact sites are close to home (18%) and because they offer large open areas (16%).

Contents

Acknowledgements

1.   Introduction

The Thames Basin Heaths SPA

1.1   The Thames Basin Heaths (TBH) Special Protection Area (SPA) covers an area of approximately 8,400 ha and was classified under the Birds Directive in 2005. The area consists of 13 Sites of Special Scientific Interest (SSSI) distributed in three counties (Surrey, Berkshire and Hampshire) and covers 11 local authorities. About half (ca 4,000 ha) is within the Ministry of Defence Training Estate, with the remainder owned and managed by Local Authorities, Conservation NGOs, Forestry Commission and private landowners.

1.2   The SPA includes areas of dry and wet heathland, mire, oak and birch woodland, gorse scrub and acid grassland, plus conifer plantation. UK southern heathlands, an open habitat found on poor, acid soils and dominated by heathers and gorse (*Calluna vulgaris*, *Erica* ssp. and *Ulex* ssp.), have a very limited global distribution, and are among the most threatened habitats in Britain and Europe. A subset of the area is also designated as a Special Area of Conservation (SAC).

1.3   The TBH are located to the south west of London, along the M3 corridor, and this proximity to London has led to high pressure for development, which started in the mid-20th century and continues to the present day. Heathlands in southern England now occupy about a sixth of the area they formerly covered. In TBH it has been estimated that the decline in area was 53% between 1904 and 2003 with fragmentation of 52 main blocks to 192 smaller blocks during the same period (Land Use Consultants 2005).

1.4   The TBH SPA is classified for three species of birds listed on Annex I of the Birds Directive: Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*. All three species are ground nesting (or in the case of Dartford warbler, low nesting) species, and are therefore particularly vulnerable to disturbance.

1.5   A range of impacts to heathlands are particularly associated with the proximity to urban areas. These 'urban effects' (see Haskins 2000; Underhill-Day 2005 for review) include; increased fire incidence, trampling, fly-tipping, pollution, soil erosion, predation by cats, increased natural predators, and disturbance by humans and their dogs. Studies of the Annex I bird species

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show clear impacts of increased housing on both breeding success and numbers (Murison 2002; Liley & Clarke 2003; Liley *et al.* 2006; Mallord *et al.* 2007)

TBH SPA Area Delivery Framework and SAMM

1.6   Acting upon this evidence of the urban effects, it was recognised that mitigation measures were necessary to ensure continued residential development did not adversely impact the TBH SPA. The local authorities, with Natural England, worked to produce a series of mitigation and avoidance measures. The background to these is discussed in detail in Burley's report on the TBH SPA draft delivery plan (2007) and details of the agreed approach set out in the Thames Basin Heaths Special Protection Area Delivery Framework (Thames Basin Heaths Joint Strategic Partnership Board 2009).

1.7   The delivery framework states a series of development zones around the SPA that inform where and how residential development can be taken forward, including the use of alternative sites, visitor access management and the accompanying monitoring of the actions:

- A 400m zone around the SPA boundary within which there is a premise of no net development.
- A zone of influence from 400m to 5km from the SPA boundary (up to 7km for large developments) within which any new residential development should provide, or contribute to the provision of, avoidance measures to mitigate the impacts of the new residents.
- Avoidance measures such as the provision of additional green space ('SANGs'– suitable alternative natural greenspace) and on-site access management ('SAMM' –strategic access management and monitoring).

1.8   Access management is coordinated strategically by Natural England working with the local authorities and partners, under the Thames Basin Heaths Partnership. The TBHP is made up of 26 organisations, primarily the 11 local authorities, but also relevant government bodies and NGOs. The access management can include 'soft' measures, such as education and wardening, or 'hard' measures such as limiting car parking, managing path networks etc. Wardening staff, which have been on the ground since 2015, promote appropriate behaviour on the SPA and encourage use of alternative sites, including the use of a website to detail alternative sites for visitors to use (http://www.tbhpartnership.org.uk/sites/).

1.9 The other part of SAMM is the monitoring of the mitigation measures. SAMM recognises that continual monitoring is needed to evaluate the levels of recreational use on heaths and on SANGs. Monitoring should allow a check on the effectiveness of measures, act as an early warning and allow mitigation measures to be adjusted as necessary to reflect changes in access patterns, and types of use on both heathland and SANG mitigation sites.

SANGs

1.10 Suitable Alternative Natural Greenspace (SANG) is the term given to greenspaces that are created or enhanced with the specific purpose of absorbing recreation pressure that would otherwise occur at sites designated at the protected wildlife sites. By providing alternative greenspaces that meets users' needs and provides a similar recreation experience to the SPA, some of the recreation pressure that would otherwise be inflicted on the protected wildlife sites can be diverted.

1.11 Creating easy to access sites, which are safe, large and interesting, are well maintained but also feel similar to the SPA is a difficult balancing act.

1.12 SANGs can be created as entirely new sites, that previously had no public access, or on greenspaces with existing access which can be enhanced to create a SANG. Such enhancements may include the addition of car-parks, marked routes or new planting, for example.

1.13 Although also established in other areas, the approach has become strongly linked to the Thames Basin Heaths and there are now some 61 blocks of SANGs established (additional sites in progress not included), as shown in Map 1. Individual SANGs may be located in close proximity to new development but may also occur more widely across the SPA. It is recognised that a SANG may not fully prevent all visits by new residents to the SPA but is however likely to take up some existing pressure, and the placement of SANGs more strategically in the context of existing housing and the SPA is relevant. By providing sites for both new residents and the existing local population, it is recognised that new residents will still exert some pressure on the SPA, but that the 'net effect' of a SANG should prevent an increase in recreation pressure on protected wildlife sites.

1.14 As part of SAMM there is an explicit requirement to monitor the outcome of access management. Monitoring is critical to establish whether SANG sites are functioning effectively as an alternative destination for people who also visit the SPA. It can also be used gauge visitor opinion of historic

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management and inform future management decisions. Management actions which consider visitor opinion are more likely to enhance the visitor experience; encouraging more frequent visits or a longer visits are likely to result in reduced visitor pressure on the SPA. Monitoring across a number of sites, examined simultaneously can be used more strategically to examine the access management network as a whole.

1.15   The purpose of this report is to analyse the SANG visitor survey data from 14 SANG sites during the winter of 2018 conducted by the SAMM project team as part of their ongoing monitoring of access.

Map 1: Location of the SANGs in relation to the Thames Basin Heaths SPA.

Legend

■ SANGs

▨ TBH SPA
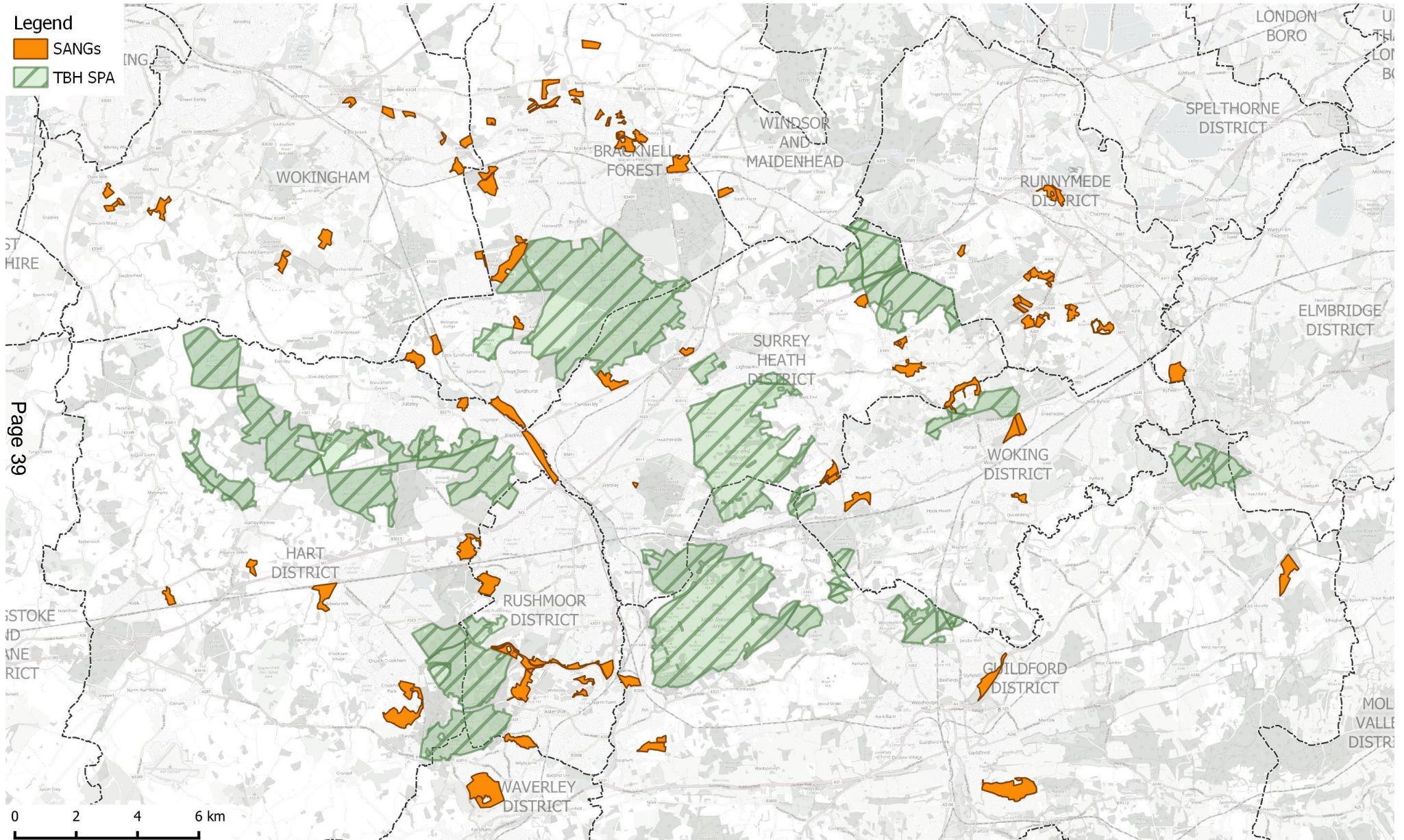
2. Methods

Approach

2.1 The face-to-face visitor surveying was undertaken by Thames Basin Heaths Partnership staff and resulting visitor data were collated and provided to us. Data were in the form of the questionnaire responses from visitors and count data on the number of people seen (overall visitor numbers) in the surveying period. Visitor surveying was conducted at 14 SANG sites (see Table 1and Map 2).

2.2 At each survey site a single point location was used to intercept visitors. These discrete point locations were at key access points onto sites, mostly main car parks.

Table 1: Summary of the 14 sites which were surveyed by TBHP staff. See also Map 2.

SANG	Local Authority	Size of site (ha)
Ambarrow Court	Bracknell	13.7
Chobham Water Meadows	Surrey Heath	24.9
Dilly Lane[1]	Hart	9.8
Ether Hill and Queenswood	Runnymede	15.9
Hare Hill	Runnymede	13.5
Hawley Meadows (and Blackwater Park)*	Hart/Surrey Heath/Rushmoor	39.0
Heather Farm	Surrey Heath/ Woking	24.9
Horseshoe Lake	Bracknell	19.4
Larks Hill[2]	Bracknell	22.6
Peacock Meadows	Bracknell	35.6
Popes Meadow	Bracknell	5.3
Shepherds Meadows	Bracknell/Hart	33.8
Timber Hill[3]	Runnymede	20.7
Woodham Common	Woking	28.9

Hawley Meadows and Blackwater Park hereafter referred to just Hawley Meadows

2.3 Surveys were conducted within standard two-hour periods of 8:00-10:00, 11:00-13:00 and 14:00-16:00. Surveying was conducted for a total of two weekday days (6 hours on each) and one weekend day (6 hours), giving 18

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[1] Queen Elizabeth II Fields in GIS.
[2] The Cut Countryside Corridor - Cut Cluster
[3] 3 blocks; Chaworth Copse, Ottershaw Chase and Timber Hill

hours of survey in total. In most cases the survey sessions at a single location were spread over several different dates. This approach is potentially ideal, compared to completing all surveying sessions on one date, as it can minimise the effect of unusual visitor patterns on a single day (e.g. visitor events, or effects of bad weather). For each survey location the surveys were all completed within the same winter period (e.g. all sessions at a location completed within January to April 2018 or September to December 2018 and not spread between these).

Tally counts

2.4   While stationed at a survey point the surveyor would maintain a tally of all people passing during the 2-hour slot. These counts enable us to compare sites in terms of visitor volume/footfall.

2.5   Counts are always considered approximate, as they are maintained while interviews are being conducted and, at busy sites in particular, it is difficult to maintain an accurate count while talking to someone. Nonetheless the totals will be largely accurate, broadly capture the level of busyness at each location and are directly comparable with each other.

Interviews

2.6   The interviewing of visitors was conducted by means of a face-to-face questionnaire led by the surveyor. Face-to-face interviews were carried out with a random selection of visitors, with the surveyor interviewing the first person/s they saw after completing the previous interview. When groups were encountered, only one person within each was interviewed, and no unaccompanied minors were approached.

2.7   Interviewees were asked several questions regarding their visiting patterns, including: their activity, visit patterns, point of origin (home postcode), reasons for using the area, other sites visited etc. The questionnaire took an average of 9 minutes to complete.

2.8   Surveys were conducted on tablets hosting SNAP survey software[4], a dedicated market research software which allows surveys to be completed on tablets in the field. A GPS facility in the tablet acted as a check to ensure that the surveyor was standing in the correct place.

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[4] https://www.snapsurveys.com/

Data processing

2.9   The survey data collected were checked over by TBHP and Footprint staff as a data cleaning exercise. This included checking data gaps, recoding any categories as necessary and examining free text fields. The list of free text site names was examined by Footprint and TBHP staff to correct any mistakes, reduce the number of duplicate variations and categorise the sites into whether they were SPA, SANG or other sites.

Surveying

2.10   Surveys were all completed in 2018 but could be conducted early in 2018 (winter 2017/2018) or later in 2018 (winter 2018/2019). However, as noted already, each survey site was completed within the discrete early or late winter windows, such that they did not span almost a year (see dates in Table 2).

2.11   Surveys at the 14 locations were conducted on 70 separate dates across winter 2018. Dates ranged from early in the year, between 12/01/2018 to 19/04/2018 and again later in the year between 21/09/2018 to 21/12/2018.

2.12   For just one location (Hare Hill) each of the 9 surveying windows were conducted on a separate date, however most had one or two sessions completed on a surveying date. On average 6 separate dates were used.

Table 2: Summary of surveying dates.

SANG	First interviews	Last interviews	Number of individual dates
Ambarrow Court	22/01/2018	22/02/2018	6
Chobham Water Meadows	19/01/2018	19/04/2018	6
Dilly Lane	11/11/2018	21/12/2018	8
Ether Hill and Queenswood	26/01/2018	19/02/2018	6
Hare Hill	12/10/2018	17/11/2018	9
Hawley Meadows	08/10/2018	27/10/2018	4
Heather Farm	16/01/2018	24/02/2018	6
Horseshoe Lake	17/01/2018	19/02/2018	5
Larks Hill	27/09/2018	15/12/2018	7
Peacock Meadows	14/11/2018	15/12/2018	8
Popes Meadow	05/10/2018	16/11/2018	5
Shepherds Meadows	23/01/2018	11/03/2018	6
Timber Hill	21/09/2018	03/10/2018	6
Woodham Common	12/01/2018	01/02/2018	6

2.13   There were no data gaps in the final dataset. Unusual events during the surveying were limited to a Bracknell Forest Council event for families and a Yateley Walking group meet up occurring during a single session at Horseshoe Lake (14/02/2018, weekday session, 11:00-13:00). The exact numbers for these events were not known, could not be distinguished from other visitors and so could not be discounted from the count.

Weather

2.14   Surveyors had a large window for the winter and therefore a reasonable level of flexibility in surveying dates and windows. Most surveys were spread over several dates and therefore this minimised the effect of a whole day of rainfall. Surveyors were much more able to select fair weather conditions, or at least dry conditions, in which interviewees are more likely to stop to be interviewed.

2.15   Overall, there was no rainfall in 80% of the 2-hour surveying windows. However, cloud cover was more variable, with an average of half of the sessions overcast. Conditions were described as cold on around three fifths of sessions, mild on a third of sessions and just a few described as warm (surveying dates in late September/ early October).

Map 2: Location of the survey points used during the SANG visitor surveying.

Legend
- ● Survey locations
- ▮ SANG site surveyed
- ▯ Other SANGs not surveyed

9: Larks Hill

11: Popes meadow

10: Peacock Meadows

4: Ether Hill

5: Hare Hill

1: Ambarrow Court

12: Shepherd meadow

2: Chobham Water Meadows

13: Timber Hill

8: Horseshoe Lake

7: Heather Farm

14: Woodham common

6: Hawley Meadows

3: Dilly Lane

LONDON BORO

SPELTHORNE DISTRICT

WOKINGHAM

BRACKNELL FOREST

WINDSOR AND MAIDENHEAD

RUNNYMEDE DISTRICT

ELMBRIDGE DISTRICT

SURREY HEATH DISTRICT

WOKING DISTRICT

HART DISTRICT

RUSHMOOR DISTRICT

GUILDFORD DISTRICT

WAVERLEY DISTRICT

0   2   4   6 km

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3.　　Visitor survey tally results

Total footfall

3.1　　In total, 2,737 people were recorded passing during the 252 hours of surveying. A summary of the total number of people passing at each survey site is given in Table 3, with values also presented as people per hour (pph). Data pooled across all survey locations provided an overall average of 10.9 people per hour passing surveyors. Values are expressed as people per hour to account for the greater surveying time on weekdays compared to weekends.

Table 3: Summary of the number of people recorded passing during tally counts, shown separately for weekdays and weekend and all values as adjusted people per hour (pph) counts. Top three and bottom three values of people per hour in each column are highlighted in red, highest, and blue, lowest.

Location	Weekday		Weekend		Total	
	Hours	Total people (pph)	Hours	Total people (pph)	Hours	Total people (pph)
Ambarrow Court	12	142 (11.8)	6	**133 (22.2)**	18	**275 (15.3)**
Chobham Water Meadows	12	126 (10.5)	6	76 (12.7)	18	202 (11.2)
Dilly Lane	12	**60 (5.0)**	6	**39 (6.5)**	18	**99 (5.5)**
Ether Hill	12	67 (5.6)	6	50 (8.3)	18	117 (6.5)
Hare Hill	12	**210 (17.5)**	6	65 (10.8)	18	**275 (15.3)**
Hawley Meadows	12	82 (6.8)	6	**40 (6.7)**	18	122 (6.8)
Heather Farm	12	**241 (20.1)**	6	**260 (43.3)**	18	**501 (27.8)**
Horseshoe Lake	12	134 (11.2)	6	101 (16.8)	18	235 (13.1)
Larks Hill	12	73 (6.1)	6	49 (8.2)	18	122 (6.8)
Peacock Meadows	12	64 (5.3)	6	52 (8.7)	18	**116 (6.4)**
Popes Meadow	12	137 (11.4)	6	**140 (23.3)**	18	**277 (15.4)**
Shepherds Meadows	12	**172 (14.3)**	6	57 (9.5)	18	229 (12.7)
Timber Hill	12	**24 (2.0)**	6	**23 (3.8)**	18	**47 (2.6)**
Woodham Common	12	**62 (5.2)**	6	58 (9.7)	18	120 (6.7)
Total	**168**	**1594 (9.5)**	**84**	**1143 (13.6)**	**252**	**2737 (10.9)**

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3.2   There were marked differences between sites, with the total ranging from
       501 people (27.8 people per hour) at Heather Farm, to 47 (2.6 pph) at Timber
       Hill. The simple totals are given in Table 3, with the overall sum and people
       per hour, and both shown separately for weekdays and weekend days.

3.3   Values for an "average day" are calculated by adjusting values to account for
       a weekly pattern (i.e. weekday pph is multiplied by 5, weekend pph is
       multiplied by 2, values summed and divided by 7 days in a week). These
       values are at a maximum only around 0.5 pph different from the unadjusted
       pph values in the final column of Table 3. The average day pph estimate is
       used in Figure 1. The value for the overall sum was very similar to an average
       day estimate.

3.4   Figure 2 is used to show the relationship between these average day people
       per hour counts and the size of the site. This did not appear to show any
       correlation.
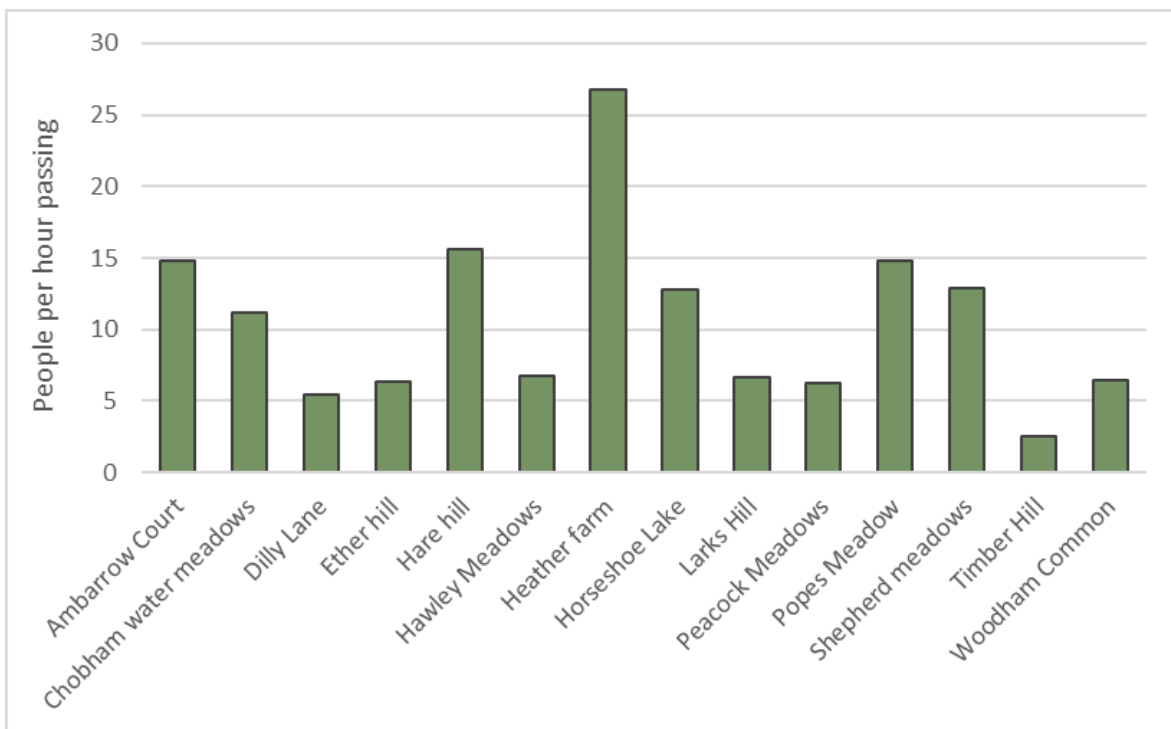
**Figure 1: Number of people per hour passing at each location shown as value for an "average day".
Average day people per hour is calculated by adjusting raw values to account for a weekly pattern
(weekday pph is multiplied by 5, weekend pph is multiplied by 2, values summed and divided by 7
days in a week).**

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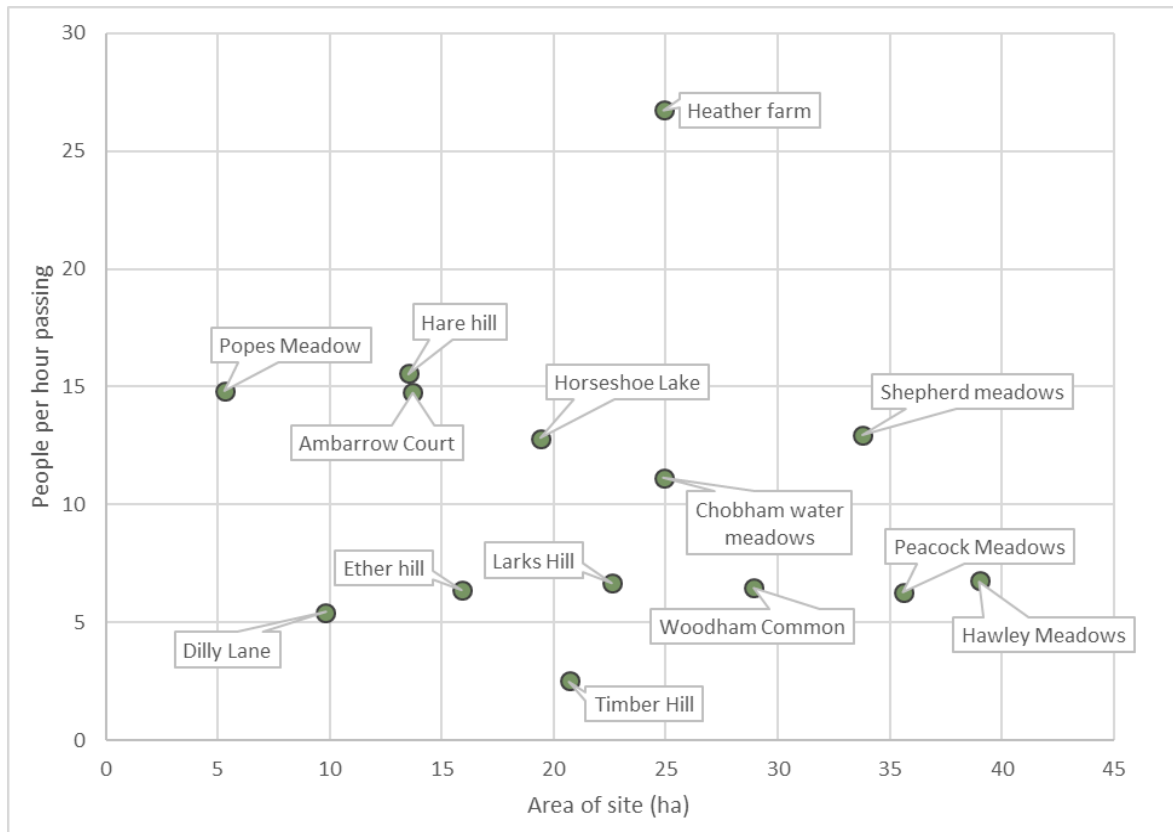
Figure 2: Scatterplot of the relationship between number of people per hour recorded in the tally count and the size of the site.

Weekday and weekend day

3.5   Overall, weekend values were greater than weekdays. Only three locations had visitor totals which were greater on weekdays then weekends: Hare Hill (6.7 pph less, 38% less), Shepherds Meadows (4.8 pph less, 34% less) and Hawley Meadows (0.1 pph less, 1% less). The average people per hour on weekdays and weekend days at each survey location is given in Table 3 and shown in Map 3.

3.6   Examination of the two hour totals for each location (9 values for each) using a statistical test for differences, a Kruskal-Wallis test, showed highly significant differences between survey locations (H=67.87, df=13, p<0.001), between weekdays and weekends (H=4.58, df=1, p<0.032), but not between the three different times of day (H=2.67, df=2, p=0.264).

Map 3: Tally count data summarised as number of people per hour for each survey point and seperately for weekdays and weekends.

Legend

- Survey locations
- SANG site surveyed
- Other SANGs not surveyed

Tally count (pph)

- weekday
- weekend

30

10

5

1

0   2   4   6 km

WINDSOR AND MAIDENHEAD

SPELTHORNE DISTRICT

BRACKNELL FOREST

WOKINGHAM

RUNNYMEDE DISTRICT

ELMBRIDGE DISTRICT

SURREY HEATH DISTRICT

WOKING DISTRICT

HART DISTRICT

RUSHMOOR DISTRICT

GUILDFORD DISTRICT
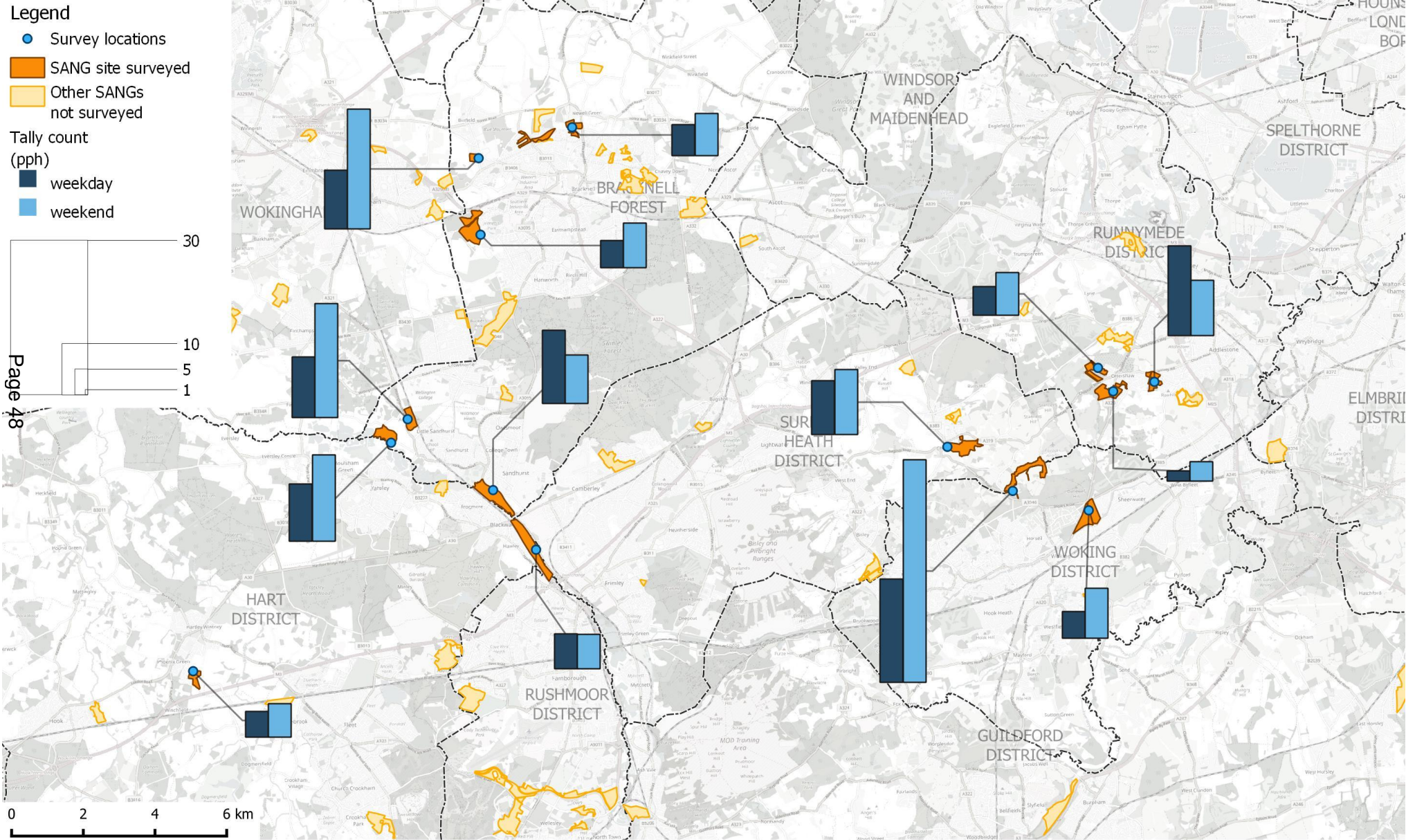
4.   Visitor survey interview results

Number of interviews

4.1   In total, surveyors conducted interviews with 706 people (or groups of people). Where groups of people were interviewed, only one person was targeted for interviewing. Hereafter all people or groups of people are referred to as interviewees. The group sizes are explored in a later section.

Site totals

4.2   Total number of interviews at each survey point ranged from 16 at Timber Hill to 112 at Heather Farm over the 18 hours of survey. The total number of people interviewed was 1,021 and this was 45% of the persons seen passing during tally counts.

Table 4: Summary of the interviewing at each location. Table shows the number of interviews conducted, total number of people in the interviews and the number of people interviewed as a percentage of all people recorded in tally counts.

SANG	Number of interviews	Total people in interviews	% of people from tally count who were interviewed
Ambarrow Court	86	123	45
Chobham water meadows	49	70	35
Dilly Lane	39	51	52
Ether hill	32	44	38
Hare hill	42	59	21
Hawley Meadows	47	60	49
Heather farm	112	165	33
Horseshoe Lake	51	101	43
Larks Hill	44	60	49
Peacock Meadows	47	56	48
Popes Meadow	47	85	31
Shepherd meadows	56	86	38
Timber Hill	16	19	40
Woodham Common	38	42	35
Total	**706**	**1021**	**45**

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Group composition

4.3   At the end of questionnaire, surveyors recorded a number of observations about the participating interviewees. From this data we can conclude interviewees were usually people on site on their own – 66% of interviewees were lone persons. The largest interviewed group size was 18 people, but overall the average group size of the interviewees was 1.5 people per group. On average the interviewed group consisted of 0.1 minors per group, 0.3 over 65s per group and 0.9 dogs per group.

Table 5: Group composition of interviewees. Final three columns of averaged values are coloured from red (high) to blue (low) values.

SANG	Number of interviewees	Number of people in groups	Number of dogs	Number of minors	Averaged people per group	Averaged dogs per group	Averaged minors per group
Ambarrow Court	86	123	67	3	1.43	0.78	0.02
Chobham water meadows	49	70	44	2	1.43	0.90	0.03
Dilly Lane	39	51	37	4	1.31	0.95	0.08
Ether hill	32	44	29	2	1.38	0.91	0.05
Hare hill	42	59	34	6	1.40	0.81	0.10
Hawley Meadows	47	60	47	3	1.28	1.00	0.05
Heather farm	112	165	95	10	1.47	0.85	0.06
Horseshoe Lake	51	101	50	14	1.98	0.98	0.14
Larks Hill	44	60	43	4	1.36	0.98	0.07
Peacock Meadows	47	56	47	3	1.19	1.00	0.05
Popes Meadow	47	85	35	26	1.81	0.74	0.31
Shepherd meadows	56	86	50	6	1.54	0.89	0.07
Timber Hill	16	19	8		1.19	0.50	0.00
Woodham Common	38	42	38	1	1.11	1.00	0.02
Total	**706**	**1021**	**624**	**84**	**1.45**	**0.88**	**0.08**

4.4   The number of interviewees and constituting people in interviewed groups for each survey point are shown in Table 5. From Table 5 the largest average group size was at Horseshoe Lake, with 2.0 people per group, compared to 1.1 people per group at Woodham Common. The number of dogs per group was highest at Hawley Meadows, Peacock Meadows and Woodham Common with an average of 1 dog per group, compared to 0.5 dogs per group at

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Timber Hill. The number of minors per group showed less variation but ranged from 0.3 per group (Popes Meadow) to 0 at Timber Hill.

4.5 From the interviews, it would appear group sizes were larger at weekends and with more minors, but fewer dogs in groups. On weekdays an average interviewed group consisted of 1.3 people per group, 0.9 dogs per group and 0.1 minors per group. On weekends this was 1.6 people per group, 0.8 dogs per group and 0.2 minors per group.

4.6 A summary of survey points group sizes for people, dogs and minors on weekdays and weekend days is given in Figure 3.
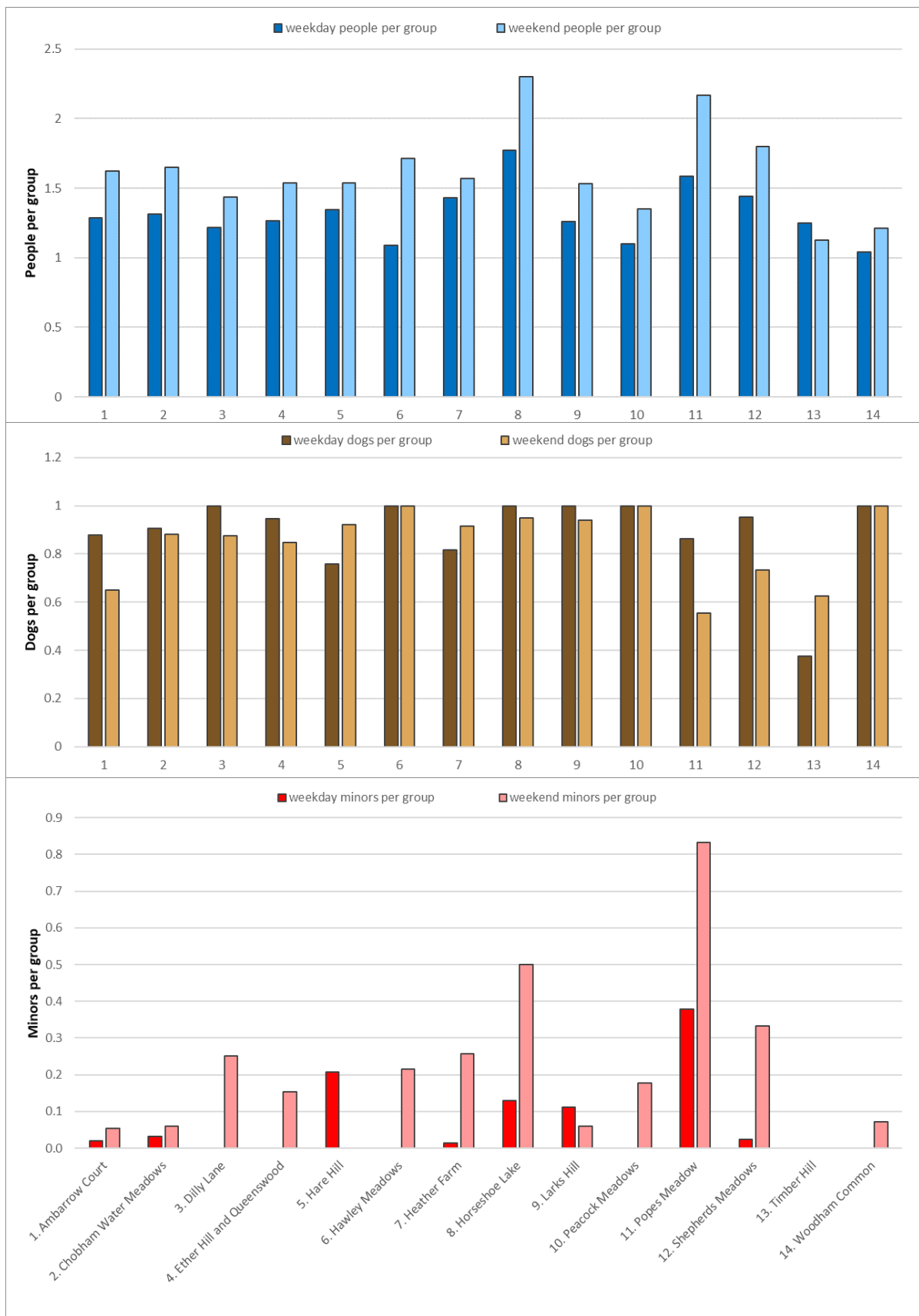
Figure 3: Summary of interviewee group composition; average people, dogs and minors per group at each survey site, shown separately for weekdays and weekends. Note differing scales.

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Activity

4.7　　　The first question interviewees were asked concerned their main activity on the site. The vast majority of interviewees were dog walkers (561 interviewees, 79%), followed by walkers (88, 12%) and outing with the family (21, 3%). All other activities were conducted by 36 interviewees, but each activity category amounted to less than 1% of interviewees overall. Other interesting groups were; commercial dog walkers (10 interviewees, 1%), short-cut/ commute/ school run (7, 1%) and cyclists who consisted of just 1 interviewee (0.1%).

4.8　　　There were clear differences between sites, which can be best examined using the percentage of interviewees, shown for each site in Table 6 (and Map 4). The main interviewee activity, dog walking, ranged from 50% (Timber Hill) to 95% (Dilly Lane). At Timber Hill the remaining 50% of interviewees were all walkers, which was the highest recorded percentage – however this site had the lowest overall number of interviewees. Other sites with more than 15% walkers were; Heather Farm (20%), Ambarrow Court (19%), Chobham water meadows (18%), Horseshoe Lake (18%) and Shepherd Meadows (16%).

4.9　　　Other important activities (those highlighted in bold in Table 6) were: 19% of interviewees at Popes Meadow on an outing with the family (9 interviewees), 12% of interviewees at Hare Hill on a short cut/ commute/ school run (5 interviewees) and 8% of interviewees at Woodham Common jogging/running (3 interviewees).

4.10　　The activities are also presented in Map 4, although activity categories have been simplified. A new category for "exercise", running/jogging and cycling are combined and a new category of "friends/family" pooled those on an outing with the family or meeting up with friends.
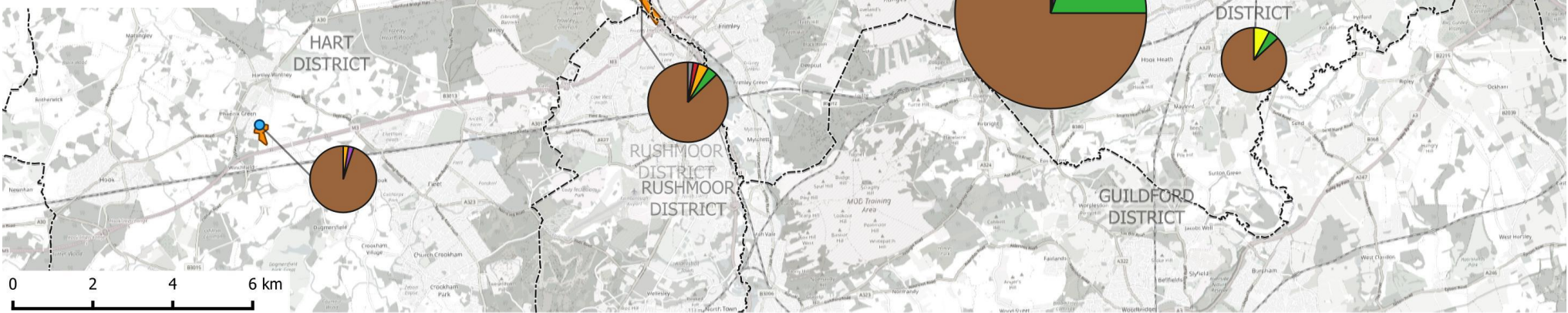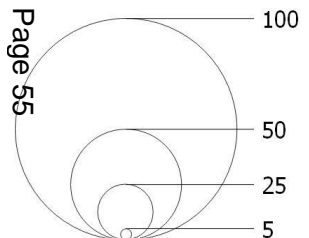
Table 6: Summary of the number of interviewees conducting each activity. Values in brackets show the percentage for each site (row). Values in bold indicate the activities for which largest values were recorded and amount to 90% of interviewees.

	Dog walking	Walking	Outing with family	Commercial dog walking	Short-cut/Commute/School run	Jogging/ Running/ Power walking	Bird/ Wildlife watching	Other	Enjoy scenery	Meet up with friends	Cycling/ Mountain Biking
Ambarrow Court	**63 (73)**	**16 (19)**	3 (3)	1 (1)			3 (3)				
Chobham water meadows	**40 (82)**	**9 (18)**									
Dilly Lane	**37 (95)**		1 (3)	1 (3)							
Ether hill	**29 (91)**	1 (3)	1 (3)			1 (3)					
Hare hill	**35 (83)**	2 (5)			**5 (12)**						
Hawley Meadows	**41 (87)**	**2 (4)**		**2 (4)**	1 (2)			1 (2)			
Heather farm	84 (75)	22 (20)	1 (1)	1 (1)	1 (1)		1 (1)			2 (2)	
Horseshoe Lake	**37 (73)**	**9 (18)**	3 (6)	1 (2)			1 (2)				
Larks Hill	**38 (86)**	**3 (7)**	1 (2)					1 (2)	1 (2)		
Peacock Meadows	**41 (87)**	1 (2)	1 (2)	**3 (6)**		1 (2)					
Popes Meadow	**31 (66)**	4 (9)	**9 (19)**	1 (2)		1 (2)			1 (2)		
Shepherd meadows	**44 (79)**	**9 (16)**	1 (2)					1 (2)			1 (2)
Timber Hill	**8 (50)**	**8 (50)**									
Woodham Common	**33 (87)**	2 (5)				**3 (8)**					
Total	**561 (79)**	**88 (12)**	21 (3)	10 (1)	7 (1)	6 (1)	5 (1)	3 (0)	2 (0)	2 (0)	1 (0)

Map 4: Interviewee activities shown as pie charts sized by the number of interviewees at each location.

Legend

- Survey locations
- SANG site surveyed

Activity

- Dog walking
- Walking
- Family/Friends
- Commercial dog walking
- Short-cut/Commute /School run
- Exercise
- Bird/ Wildlife watching
- Enjoy scenery
- Other

100
50
25
5

Page 55

0   2   4   6 km

4.11 Interviewees who were on site for a specific activity often had a usual group profile. These group profiles are summarised in Table 7. The number of people per group was highest for those interviewees who were conducting family outings, with an average group size of 3 people per group, compared to just 1 for commercial dog walkers and cyclists (but the latter had only one interviewee). Dogs were present in most groups, 82% of interviewed groups (compared to the 79% who stated their main activity as dog walking), with an average of 1.2 dogs per group. For commercial dog walkers this was 3.9 dogs per group and dog walkers 1.3. Number of minors per group was highest for those on an outing with the family, with 1.2 minors per group.

Table 7: Summary of interviewee group profile for each activity. Data table sorted by the number of interviewees

Activity	Total interviewees	Total people (average people per group)	Total dogs (average dogs per group)	Total minors (average minors per group)
Dog walking	561	729 (1.3)	751 (1.3)	47 (0.1)
Walking	88	180 (2.0)	10 (0.1)	8 (0.1)
Outing with family	21	62 (3.0)	6 (0.3)	25 (1.2)
Commercial dog walking	10	10 (1.0)	39 (3.9)	
Short-cut/Commute/School run	7	11 (1.6)		3 (0.4)
Jogging/ Running/ Power walking	6	7 (1.2)	1 (0.2)	
Bird/ Wildlife watching	5	10 (2.0)	1 (0.2)	1 (0.2)
Other	3	4 (1.3)	1 (0.3)	
Enjoy scenery	2	3 (1.5)		
Meet up with friends	2	4 (2.0)	4 (2.0)	
Cycling/ Mountain Biking	1	1 (1.0)		
Total	**706**	**1021 (1.4)**	**813 (1.2)**	**84 (0.1)**

4.12 Differences between weekdays and weekends were very slight. Comparison of simple values in Table 8 shows the largest difference in the percentage of interviewees between weekdays and weekends was in the dog walking (1.5%), but this was relatively small as a proportion, changing from 81.0% to 79.5% of interviewees.

4.13 However, differences between these values could instead be examined as a relative percentage change. Key differences from this were: on weekends the percentage of interviewees bird watching was 3.2 times greater on weekends

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than on weekdays and outing with the family 1.9 times greater and on weekdays, commercial dog walking, meeting up with friends and short cut/ commute/ school run were all roughly 1.6 times greater on weekdays than weekends.

Table 8: Number of interviewees and percentage on weekdays and weekend days. Note double the survey effort on weekdays compared to weekends. Data table sorted by the number of interviewees.

Activity	Total interviewees	Total interviewees		Percentage of interviewees	
		Weekday	Weekend	Weekday	Weekend
Dog walking	561	366	195	81.0	79.5
Walking	88	54	34	11.9	12.5
Outing with family	21	7	14	1.5	3.0
Commercial dog walking	10	10		2.2	1.4
Short-cut/Commute/School run	7	7		1.5	1.0
Jogging/ Running/ Power walking	6	3	3	0.7	0.8
Bird/ Wildlife watching	5	1	4	0.2	0.7
Other	3	2	1	0.4	0.4
Meet up with friends	2	2		0.4	0.3
Enjoy scenery	2		2	0.0	0.3
Cycling/ Mountain Biking	1		1	0.0	0.1
Total	**706**	**452**	**254**	**100**	**100**

Visit patterns

4.14 The surveyors also asked questions concerning the interviewees' visit patterns. Interviewees were asked to consider the duration of their visit and also the frequency of visits to the current site. Reponses given in these two questions were categorised into classes by the surveyor (classes given in the questionnaire in the Appendices and used in Figure 4 and Figure 5).

Visit duration

4.15 Interviewees were asked to consider how long they had been (or were planning to be, if only just arrived) on the site for their visit. Categories of visit duration, with reference to the approximate time in minutes on site, were used to group the interviewees' responses. In addition, from the

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frequencies reported by each respondent we calculated an approximate averaged visit duration. This was estimated using the number of interviewees in each category, multiplied by an approximate duration in terms of minutes[5], summed for each category, and then divided by the overall number of interviewees. These simple, but highly approximate estimates, serve to give an indication of duration and allow comparisons to easily be made with a single value.

4.16   Overall interviewees mostly visited for between 30 minutes and 1 hour (404 interviewees, 57%), followed by less than 30 minutes (176, 25%) and 1 to 2 hours (112, 16%). An overall averaged estimate of time spend on site from these values was therefore around 50 minutes. There was very little difference between weekday and weekend, with an overall average estimate of 48 minutes on weekdays and 49 on weekends.

4.17   The proportion of interviewees for the visit duration categories at each site is shown in Figure 4. It was clear that visit duration was longest at Heather Farm and Horseshoe Lake. Horseshoe Lake had smallest proportion of interviewees visiting for less than 30 mins (just 2%) and Heather Farm the largest proportion of interviewees visiting for more than 1 hour (48%). Heather Farm and Horseshoe Lake had the longest estimates of around 60-70 minutes. This compared to 28 minutes at Timber Hill, where 81% were visiting for less than 30 minutes. All other estimates were between 34 and 54 minutes (see Figure 4).

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[5] Estimated average time used values: Less than 30 minutes = 20 minutes; Between 30 minutes and 1 hour = 45 minutes; 1 to 2 hours = 90 minutes, 2 to 3 hours = 150 minutes, more than 3 hours = 210 minutes.

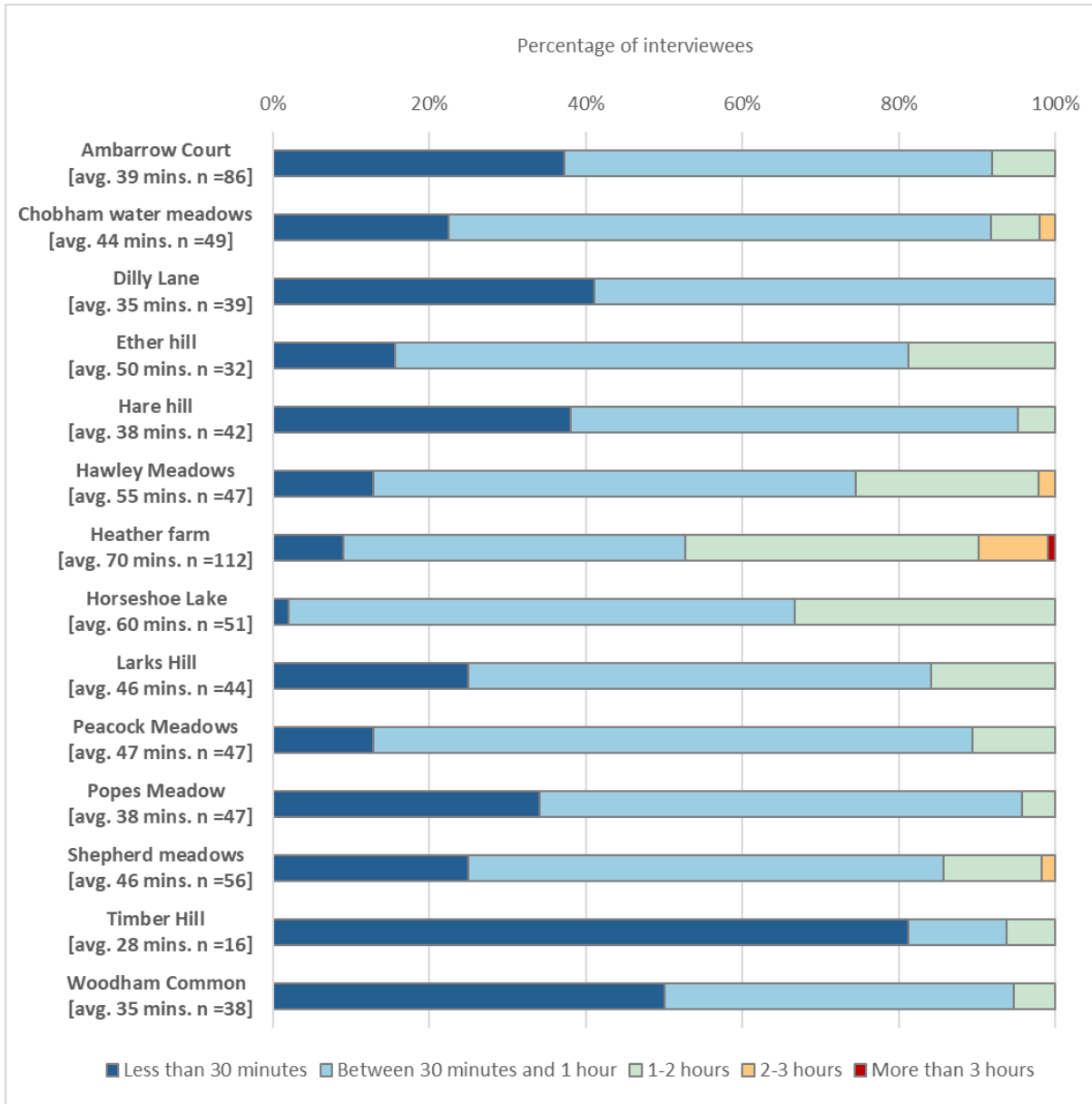**Figure 4: Summary of visit duration on site for each survey site. Values below site names give the estimate of visit duration and the sample size.**

Visit frequency

4.18   Interviewee responses for visit frequency were categorised with reference to how many visits they made in a year (e.g. "10 visits a year") or how frequently they visited (e.g. "once a week"). As for visit duration, we used simple

averaging to indicate how often people visited, based on an annual number of visits[6].

4.19   Across all sites the two most commonly given response by interviewees was 1 to 3 times a week (239 interviewees, 34%), followed by daily (145, 21%). A highly simplistic estimate for the number of visits per year by an average visitor was 189.

4.20   There were some clear differences between weekdays and weekends. On weekdays 34% of interviewees were daily or more than once a day visitors compared to 24% on weekends. At weekends roughly double the percentage of interviewees were first time visitors (8% compared to 4% on weekdays) and interviewees who came less than once a month (11% compared to 6%). The rough estimates of number of visits per year suggest around 202 visits per year by interviewees on weekdays, and 159 visits per year by interviewees on weekends.

4.21   There were some clear differences between sites, as shown in Map 5. Two stand out sites with very infrequent visitors were Heather Farm and Horseshoe Lake. At both locations there were no interviewees who visited more than once a day (present at all but Hawley Meadows too), and both had the highest percentage of interviewees who visited less than once a month. Overall, we would estimate around 100-115 visits per year for a typical visitor here. The two sites with the highest estimated number of visits per year were at Dilly Lane and Hare Hill (320-400 visits per year). These two locations had the highest percentage of interviewees visiting at least daily (daily or more than once a day pooled); 64% at Dilly Lane and 79% at Hare Hill. Other than these four sites, all other locations had an estimate of around 150 and 230 visits per year.

4.22   Figure 6 briefly examines the relationship between the average estimated number of visits per year and the approximate size of the site. This appears to show a negative relationship, with smaller sites visited more regularly, however this relationship was not significant (Pearson's = -0.302, p =0.294).

---

[6] "More than once a day" = 550 visits per year, "Daily" = 350 visits per year, "Most days (180+ visits)" =200 visits, "1 to 3 times a week (40-180 visits)" = 110 visits, "2 to 3 times per month (15-40 visits)" =27.5 visits, "Once a month (6-15 visits)" =10.5 visits, "Less than once a month (2-5 visits)" = 3 visits.
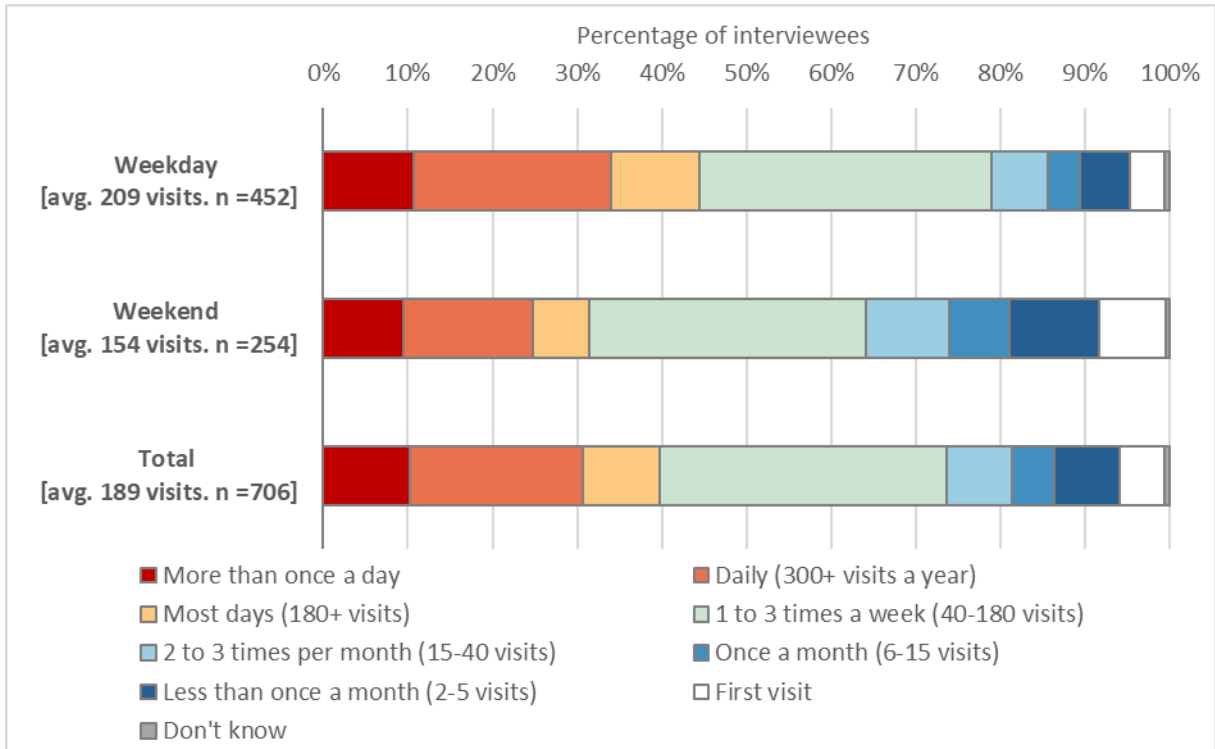
Figure 5: Summary of visit frequency from interviewees, shown separately for interviewees on weekdays, weekends and in total. Values below category names give the estimate of visit frequency (visits per year) and the sample size.
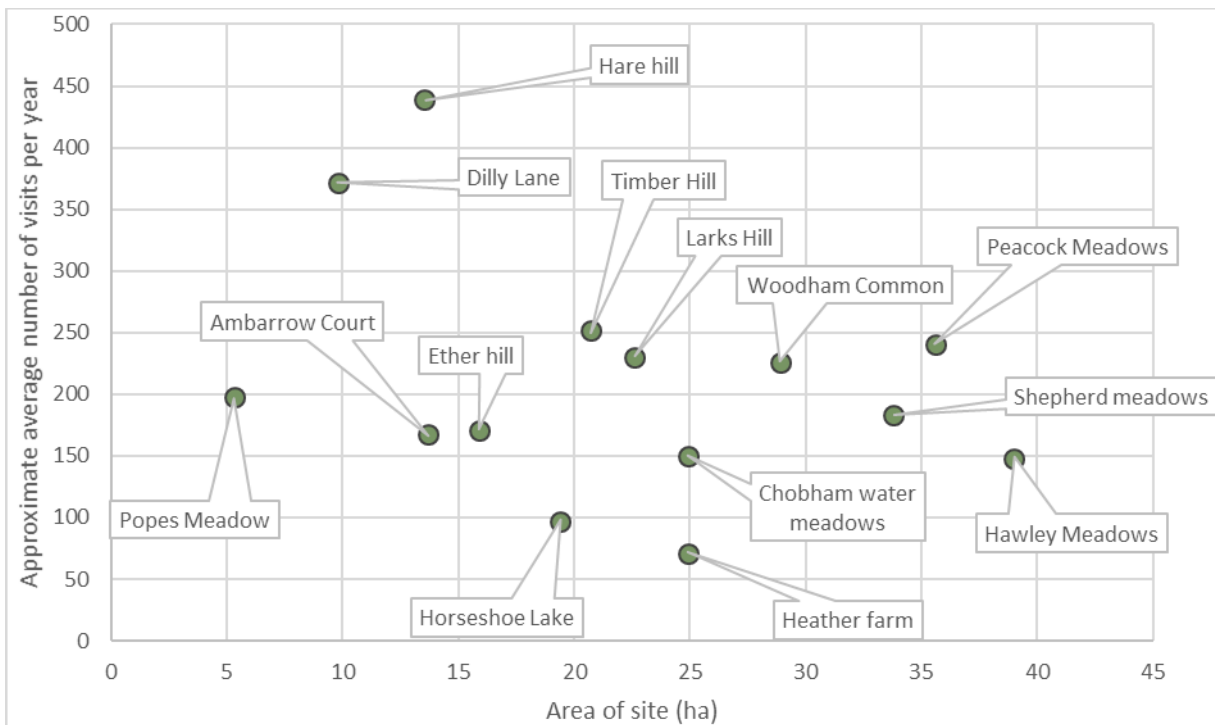
Figure 6: Scatterplot of the approximate average number of visits made per year for each site compared to the area of site (hectares).

Map 5: Interviewee visit frequency shown as pie charts sized by the number of interviewees at each location.

Legend

● Survey locations

◻ SANG site surveyed

Visit frequency:

■ More than once a day
■ Daily
■ Most days
■ 1 to 3 times a week
■ 2 to 3 times per month
■ Once a month
■ Less than once a month
First visit
Don't know

100

50

25

5

0   2   4   6 km

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Length of visitation

4.23 Interviewees were asked to state how long they had been visiting the site where they were interviewed. Responses were categorised to set groupings and estimate values assigned for each category [7]. Across all interviewees the largest category was between 1 and 5 years, which accounted for 38% of interviewees (270 interviewees). Other large categories were less than 1 year (15%, 109), and between 6 and 10 years (15%, 105), such that roughly 53% had been visiting for less than 5 years and 68% less than 10 years.

4.24 Differences were briefly examined between sites, as shown in Figure 7. The percentage visiting for less than 5 years was greatest at Dilly Lane (95%), Heather Farm (91%) and Peacock Meadows (83%), and lowest at Timber Hill (26%), Ambarrow Court (27%) and Hare Hill (28%). Those who had been visiting the SANG for less than a year was overall 15% of interviewees, but could vary from 6% at Horseshoe Lake, and 7% at Ambarrow Court, Hare Hill and Shepherds Meadow, to 33% at Heather Farm, 24% at Chobham Water Meadows and 21% at Hawley Meadows. Some very simplistic averaging produces estimates for an average visitor, show in Figure 7, which are broadly in line with these and provide an indicative ranking.

---

[7] Categories of; less than 1 year -0.5 years, between 1 and 5 years – 3 years, between 6 and 10 years -8 years, between 11 and 15 years – 13 years, between 16 and 20 years -18 years, 20 years and over -25 years and first visit – excluded.
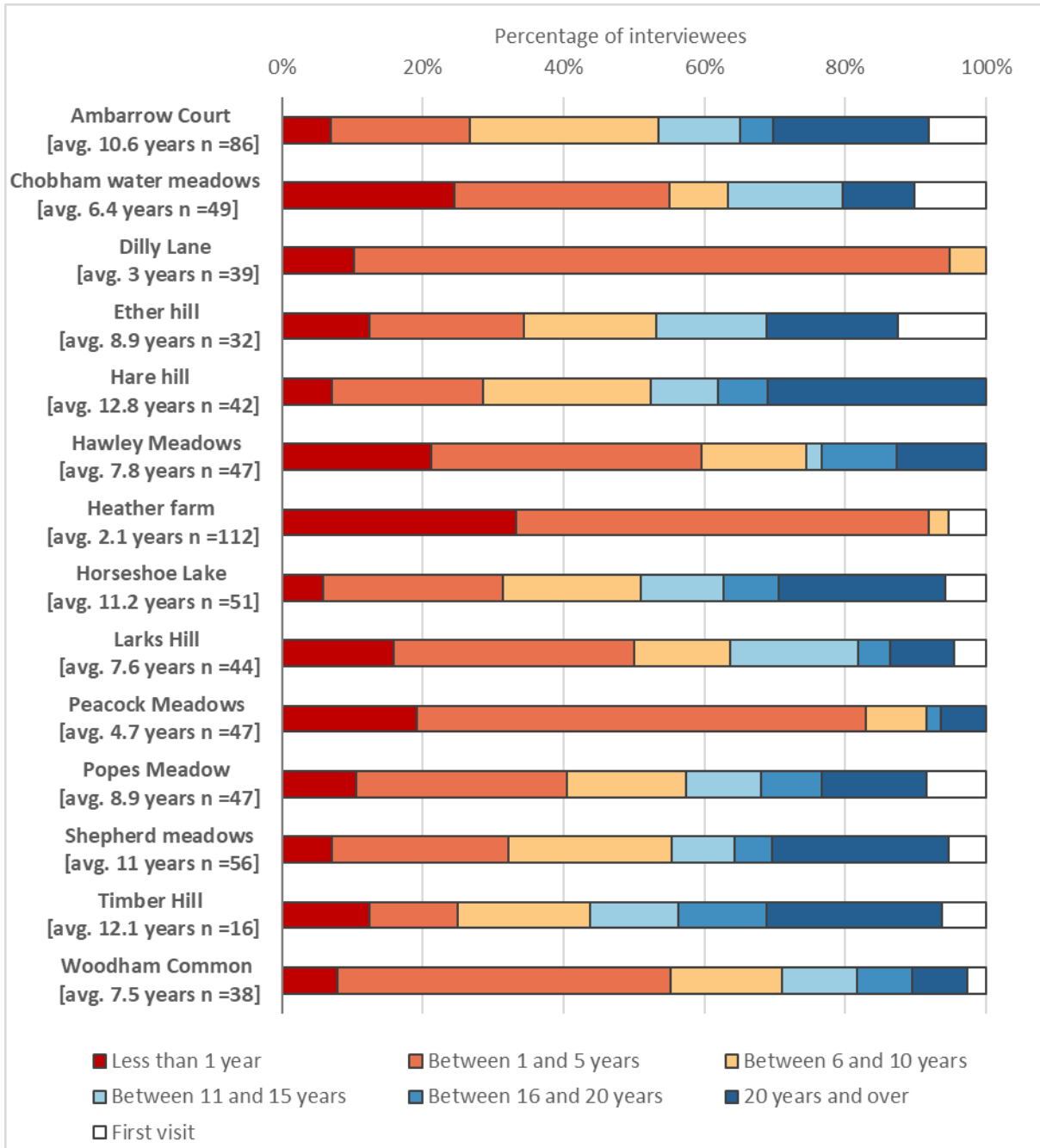
Figure 7: Summary of length of time visiting the site. Values below category names give the estimate of number of years visiting and the sample size.

Time of visit

4.25   The questionnaire also sought to understand if people tended to visit more at any particular time of day, or time of year. Interviewees were asked if they visited more at weekends or weekdays. Roughly 5% of interviewees (33) stated they were on their first visit to the site, therefore unable to comment,

but the majority, 60%, suggested they visited equally all year round. For the remaining 35% of interviewees (245 interviewees), they showed a slightly greater preference for weekdays; 65% suggested they visit more on weekdays than weekends, compared to the 35% who visit more weekends (however these calculations have not accounted for the greater survey effort on weekdays).

4.26   Interviewees were then asked if they visited more at a particular time of year, with responses categorised to four seasons. The vast majority of the interviewees, 83% (584 interviewees), suggested they visited equally all year round. Forty-two interviewees (6%) suggested they were on a first visit or did not know. Of the remaining 80 interviewees who selected one, or more than one, seasons (average 1.4 seasons selected per interviewee), roughly half of the responses were for summer (51%), followed by spring and autumn (both 17%) and winter (14%).

4.27   The responses seemed fairly consistent across survey sites, although the percentage of interviewees who visited equally all year round could range from 69% (Chobham water meadows) to 94% (Peacock meadows). Some locations appeared more popular at particular times of year: at Hawley Meadows and Horseshoe Lake, 21% and 22% of interviewees selected summer as one of the seasons in which they visited more – both open sites with water.

Transport

4.28   Overall, three-quarters of interviewees (528, 75%) arrived on site by car and a quarter on foot (173, 25%), with remaining 5 interviewees (0.7%) arriving by bicycle or other (combinations of transport). The single interviewee arriving on site by bicycle was the one interviewee whose activity was cycling.

4.29   The mode of transport used by interviewees could vary markedly between site, with the percentage arriving by car ranging from 7% (Hare Hill) to 96% at Horseshoe Lake. The individual sites are examined in Map 6 and are also shown in Figure 7. Figure 7 examines the relationship between the size of the site and the level of access by car. It would appear that often more interviewees by car are present at larger sites, however this relationship was borderline not significant (Pearson's = 0.531, p=0.050).

4.30   The prevailing modes of transport used will influence the visitor origins, as discussed when examining postcode patterns.
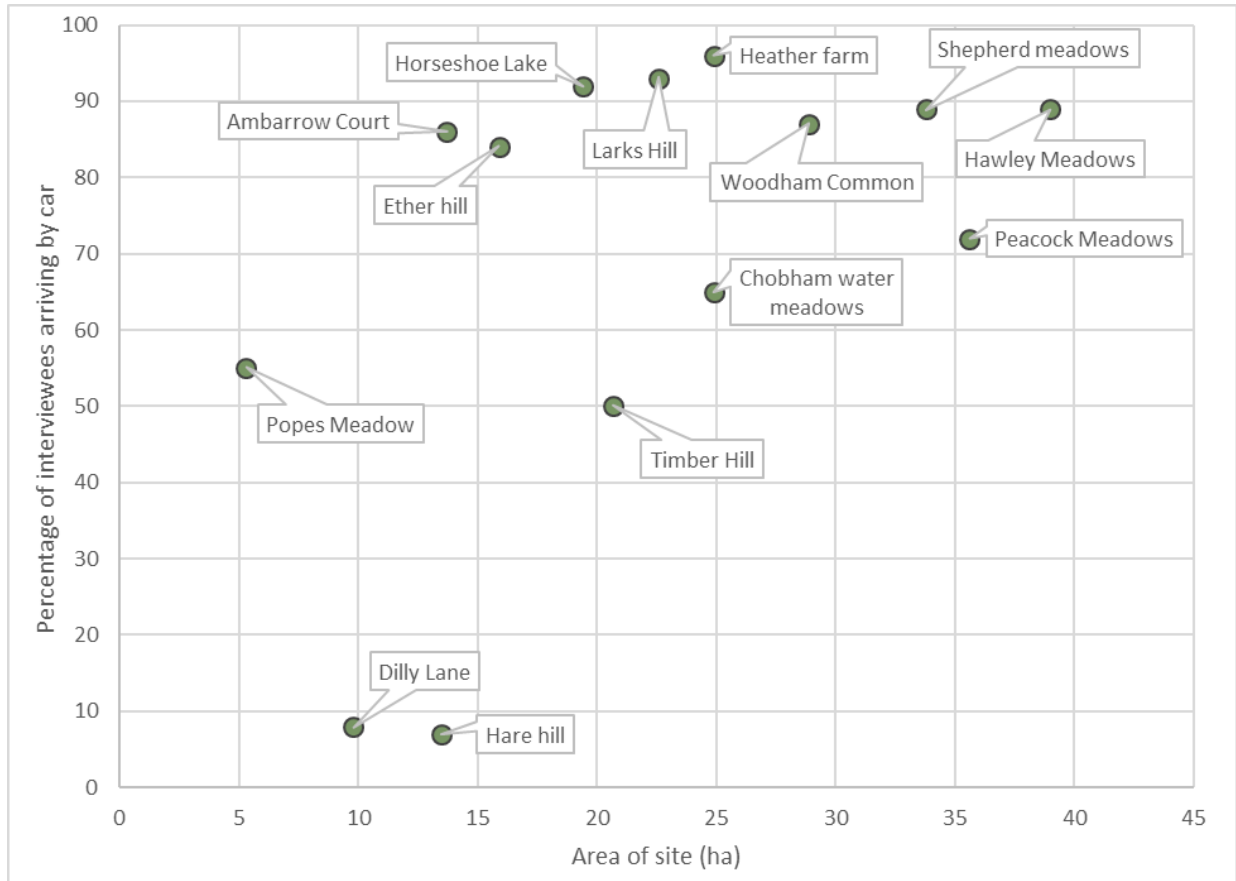
Figure 8: Scatterplot of the percentage of interviewees arriving by car compared to the area of the site (hectares).

Map 6: Interviewees mode of transport shown as pie charts sized by the number of interviewees at each location.

Legend

- ● Survey locations
- ▬ SANG site surveyed

Transport:
- Car
- On foot
- Bicycle
- Other

100
50
25
5

WOKINGHAM

WINDSOR AND MAIDENHEAD

SPELTHORNE DISTRICT

BRACKNELL FOREST

RUNNYMEDE MEDE DISTRICT DISTRICT

ELMBR DIST

SURREY SU HEATH HEATH DISTRICT DISTRICT

HART DISTRICT

WOKING DISTRICT

RUSHMOOR DISTRICT RUSHMOOR DISTRICT

GUILDFORD DISTRICT

0   2   4   6 km

Postcodes

4.31   An important part of the interviewing process was obtaining a home postcode for each interviewee. However, four interviewees refused to give a postcode and a further 20 postcodes were incomplete (e.g. GU22) or could not be georeferenced (i.e. not matched to any in our database). This provided a total of 628 georeferenced interviewee postcodes for analysis, an overall return rate of 97%.

4.32   Postcodes were generally very localised, with only 14 of the 682 postcodes outside of the 11 local authorities which make up the TBHP. It was notable that no interviewees were recorded from Waverley Borough, but 3 interviewees from Spelthorne Borough. All 11 remaining interviewees were from 11 different other local authorities across the country. The percentage of interviewees for each site originating from the different local authorities is summarised in Table 9.

4.33   For each interviewee postcode a linear distance (Euclidean) back to the survey point was measured. Distances recorded ranged from 83 m (three interviewee postcodes from Popes Meadow) to 274 km (a single interviewee from Hebden Bridge) – see Map 7. An overall average distance across all sites was considered to be 1.7 km (using median) or 3.8 km (using mean). Averages from the median value were considered more robust, as the mean values are more influenced by outlier values, especially when examining individual sites (see mean and medians in Figure 9). The median is also interesting as it represents the distance of the nearest 50% of interviewees. Another useful statistic calculated was the third quartile (Q3 or 75th percentile), which accounts for the nearest 75% of interviewees. Overall this value was 3.7 km.

Map 7: Distribution of all postcodes (inset map) and locally around the Thames Basin Heaths with postcodes categorised by site.

Legend

● all postcodes

Page 69

Legend

Site

⭐ 1   ⭐ 5   ⭐ 10
⭐ 2   ⭐ 6   ⭐ 11
⭐ 3   ⭐ 7   ⭐ 12
⭐ 4   ⭐ 8   ⭐ 13
   ⭐ 9   ⭐ 14

0   2   4   6 km
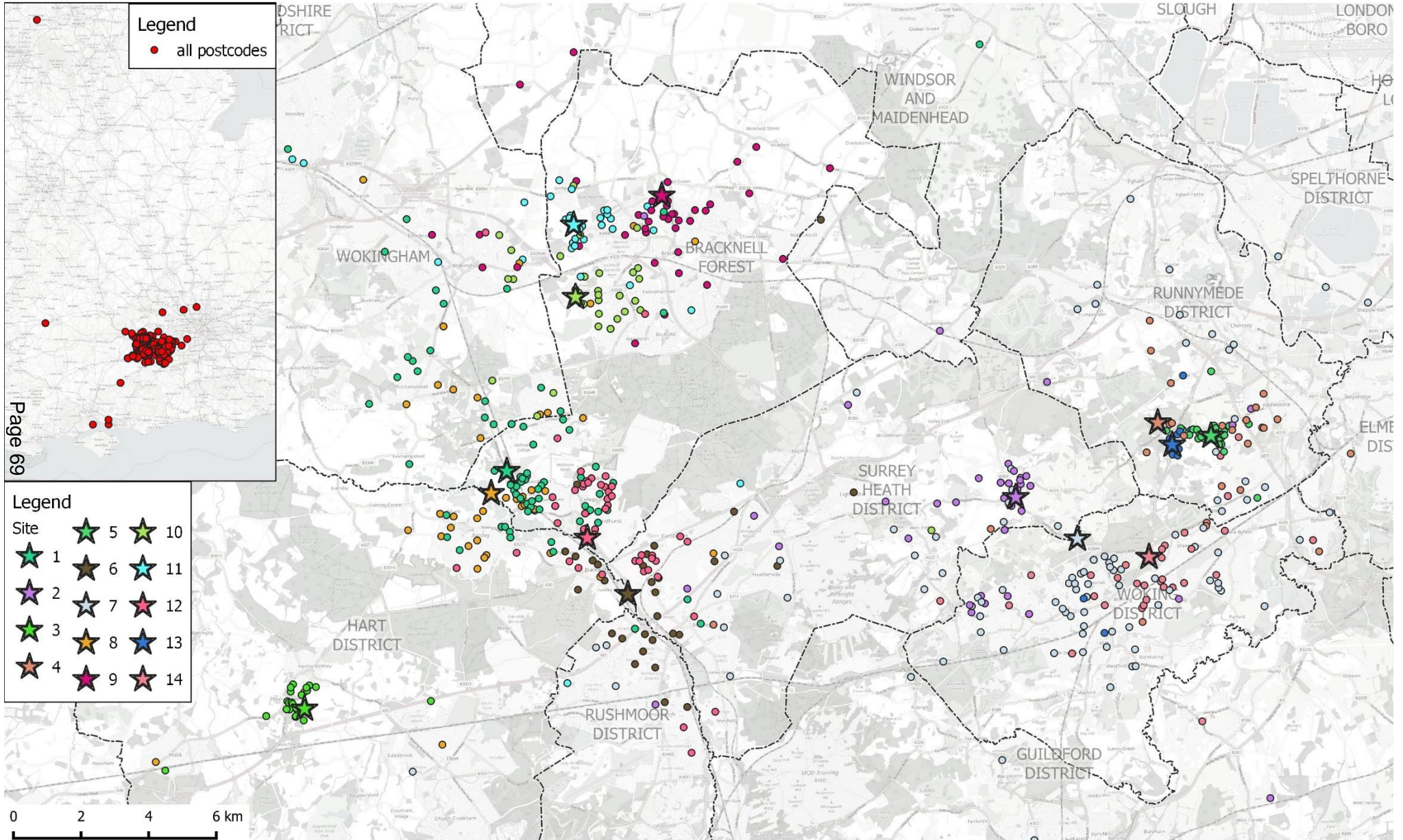
Table 9: Summary of interviewee postcodes for each local authority. Values first show the number of interviewees (n) and all subsequent values are percentages. Percentages in bold indicate local authorities which compose highest values up to 75% or more of all interviewees.

Site	n	Bracknell Forest Borough	Woking District	Runnymede District	Hart District	Surrey Heath District	Wokingham Borough	Rushmoor District	Guildford District	Windsor and Maidenhead Borough	Elmbridge District	Spelthorne District	other
Ambarrow Court	86	**56**			12	2	**26**	1		1			2
Chobham water meadows	47	2	**21**	9		**55**		2	4	2			4
Dilly Lane	38				100								
Ether hill	29		10	**79**		7					3		
Hare hill	40			**100**									
Hawley Meadows	46	**20**			15	**33**		**24**	2	2			4
Heather farm	109		**54**	17	1	**17**		3	5		2	3	
Horseshoe Lake	51	**33**			**41**	2	**22**						2
Larks Hill	42	**86**					10			5			
Peacock Meadows	42	**76**			2	2	17						2
Popes Meadow	46	**83**				2	11	2					2
Shepherd meadows	56	**61**			9	**23**	2	5					
Timber hill	15		**13**	73									13
Woodham Common	35		**80**	11		3			6				
Total	682	**32**	**15**	**15**	**12**	**12**	7	3	1	1	0	0	2

4.35 One of the key factors affecting distance travelled was the mode of transport used, which has already been noted to vary considerably between sites. Of the interviewees arriving by car, half lived within a 2.4 km radius (median) and three-quarters within 4.4 km (Q3 value). For those who arrived on foot, half lived within a 0.4 km radius and three-quarters within 0.8 km.

4.36 For individual sites the distances are visualised in Figure 9, with supporting values in Table 10. The Q3 values examined for individual sites, suggest a largest draw or catchment for Heather Farm (75% of interviewees lived within 7.1 km) and Chobham water meadows (6.3 km). This compared to just 0.6 km at Hare Hill and 0.7 km at Dilly Lane.
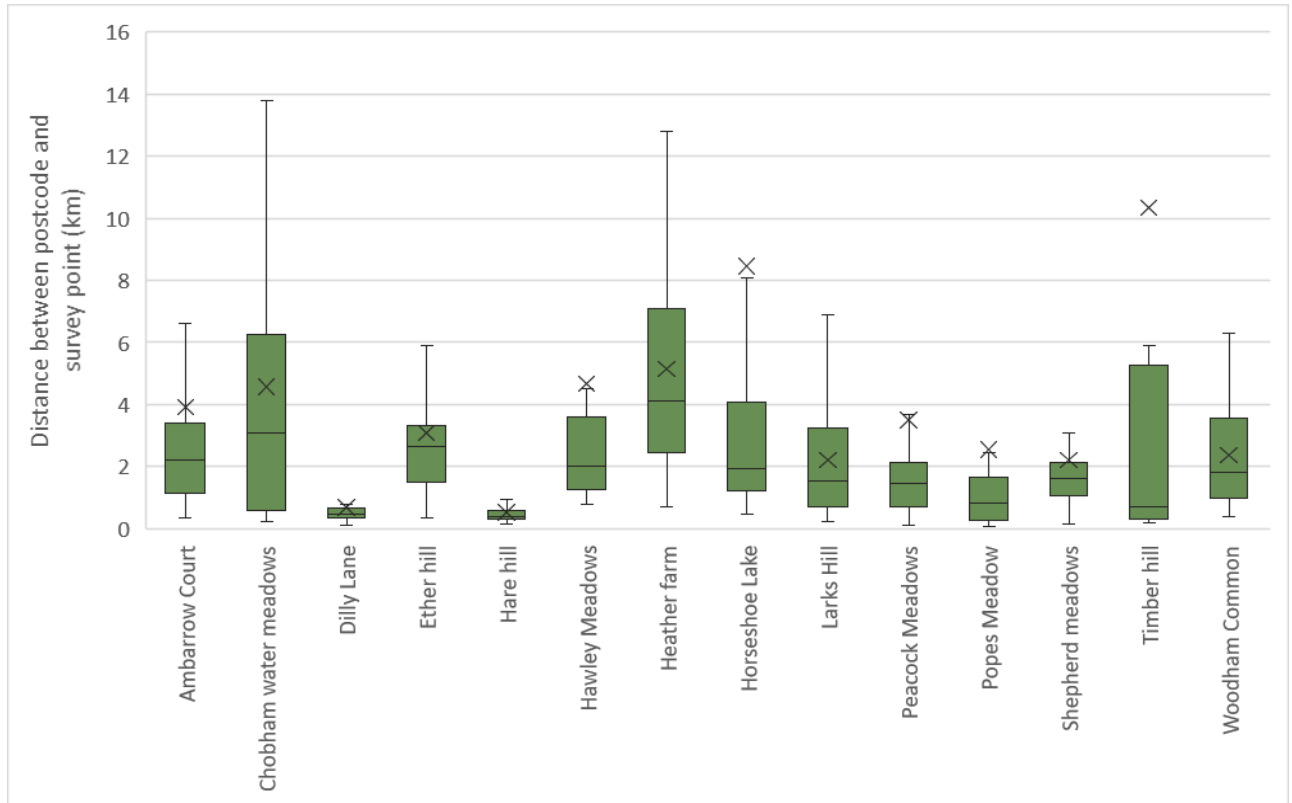
Figure 9: Boxplot of the range of distances between interviewee postcodes and survey points recorded at each survey site. Boxes show the range between Q1 (25%) and Q3 (75%), cross line within this indicates the median. Whiskers indicate the range of values, excluding outliers. The cross indicates the mean.

Table 10: Summary statistics for distance between interviewees home postcode and survey point.

Site	N	Mean ± SE	Median	Q3	Min - Max
Ambarrow Court	86	3.9 ± 0.9	2.2	3.4	0.4 - 72.3
Chobham water meadows	47	4.6 ± 0.9	3.1	6.3	0.2 - 28.8
Dilly Lane	38	0.7 ± 0.1	0.5	0.7	0.1 - 4.5
Ether hill	29	3.1 ± 0.5	2.7	3.3	0.4 - 14.4
Hare hill	40	0.5 ± 0.1	0.4	0.6	0.2 - 2.3
Hawley Meadows	46	4.7 ± 1.5	2.0	3.6	0.8 - 64.7
Heather farm	109	5.2 ± 0.4	4.1	7.1	0.7 - 20.8
Horseshoe Lake	51	8.5 ± 5.3	1.9	4.1	0.5 - 274.2
Larks Hill	42	2.2 ± 0.3	1.5	3.2	0.2 - 6.9
Peacock Meadows	42	3.5 ± 1.6	1.5	2.1	0.1 - 68.6
Popes Meadow	46	2.6 ± 0.9	0.8	1.7	0.1 - 39.4
Shepherd meadows	56	2.2 ± 0.3	1.6	2.1	0.2 - 10.2
Timber hill	15	10.3 ± 6.7	0.7	5.2	0.2 - 97.3
Woodham Common	35	2.4 ± 0.3	1.8	3.6	0.4 - 9.5
Total	**682**	**3.8 ± 0.5**	**1.7**	**3.7**	**0.1 - 274.2**

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4.37   The area covered by the 75% nearest postcodes at each survey site are shown in Map 8. The distance and overall area covered by these catchments varied markedly by site, as shown in Table 11. To help illustrate how different these are we have also calculated the 95% percentile radius and convex hull areas in Table 11. These become less robust at sites with small sample sizes – see Timber Hill – but help indicate the wide range of catchments observed.

4.38   The final column in Table 11 is a calculation informed by Voronoi cells which partitions the Thames Basin Heaths landscape into polygons based on their distance to the nearest point. Using the survey points we can divide the landscape into polygons based on the nearest survey point, on an assumption that visitors would visit their nearest site. For each site we calculated the number of interviewee postcodes which were located within their respective Voronoi and calculated this as a percentage of all interviewees. This gives an indication of the proportion of interviewees who were visiting their nearest site, out of those surveyed.

4.39   At sites such as Heather Farm, only 28% of interviewees were located within the Heather Farm Voronoi and therefore visiting their nearest site, followed by Ambarrow Court (42%) and Horseshoe Lake (43%). This calculation is an indication, although it is often clear that those on the edges perform better, where there is less choice (Dilly Lane and Hare Hill) compared to those in close proximity to others (e.g. Ether Hill and Heather Farm).

Table 11: Summary of the catchment radius (meters) for individual sites, calculated using the 75th and 90th percentile of linear postcodes distances from interviewee data. Catchment area is calculated from convex hulls around the 75 and 90 percent nearest postcodes (see map 8).

Site	Size of site (ha)	Catchment radius (m) :		Catchment convex hull area (km²):		Percentage in voronoi (within 15km)
		75th percentile	90th percentile	75th percentile	90th percentile	
Ambarrow Court	13.7	3.4	7.3	20.0	67.7	42
Chobham water meadows	24.9	6.3	12.4	47.9	143.4	64
Dilly Lane	9.8	0.7	1.2	0.3	0.6	100
Ether hill	15.9	3.3	5.9	10.5	34.4	17
Hare hill	13.5	0.6	1.1	0.3	0.7	90
Hawley Meadows	39.0	3.6	8.5	14.9	35.0	63
Heather farm	24.9	7.1	10.8	99.0	205.0	28
Horseshoe Lake	19.4	4.1	8.7	22.2	78.6	43
Larks Hill	22.6	3.2	5.2	13.1	41.9	74
Peacock Meadows	35.6	2.1	3.6	6.3	16.1	67
Popes Meadow	5.3	1.7	8.3	2.7	15.2	83
Shepherd Meadows	33.8	2.1	6.3	7.4	19.8	57
Timber hill	20.7	5.2	63.0	1.8	7.4	53
Woodham Common	28.9	3.6	5.0	9.5	22.9	63

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Map 8: Distribution of postcodes around the Thames Basin Heaths, postcodes categorised by site and using convex hulls to indicate the area covered by the 75% nearest.

Legend

75PercChulls

Convex hull
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

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0   2   4   6 km

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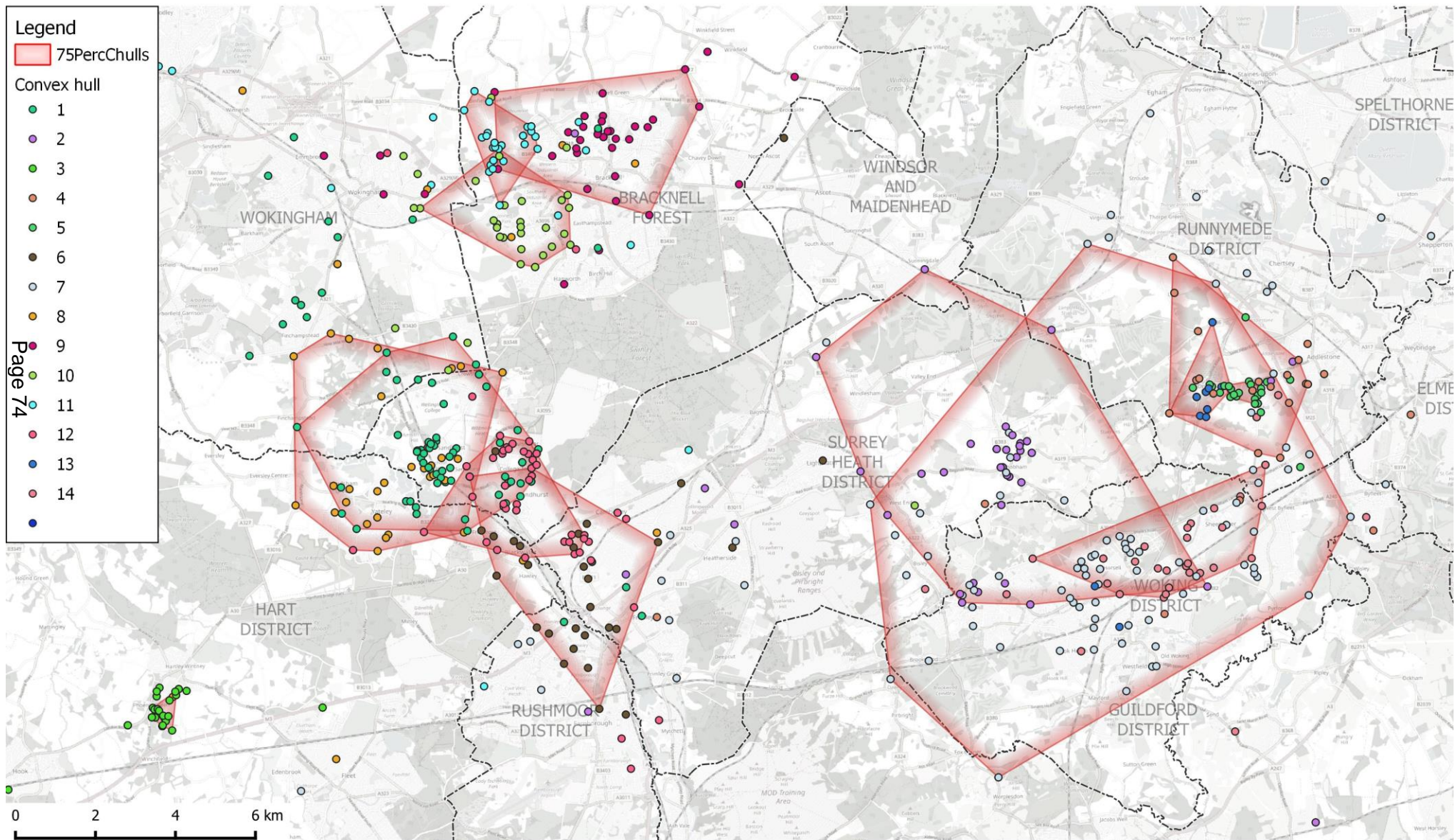
4.40   The distance interviewees have to travel to sites will have bearing on a range of other factors about their visit. One of the main factors will be how often they chose to visit to the site. Figure 10 shows how these two relate using the categories of visit frequency and distance between home postcode and the site. For daily visitors, around half lived within 1.0 km (median value), in comparison to who visited 1-3 times a week, for which the value was 2.0 km, and for those who visited once a month this was 3.5 km.
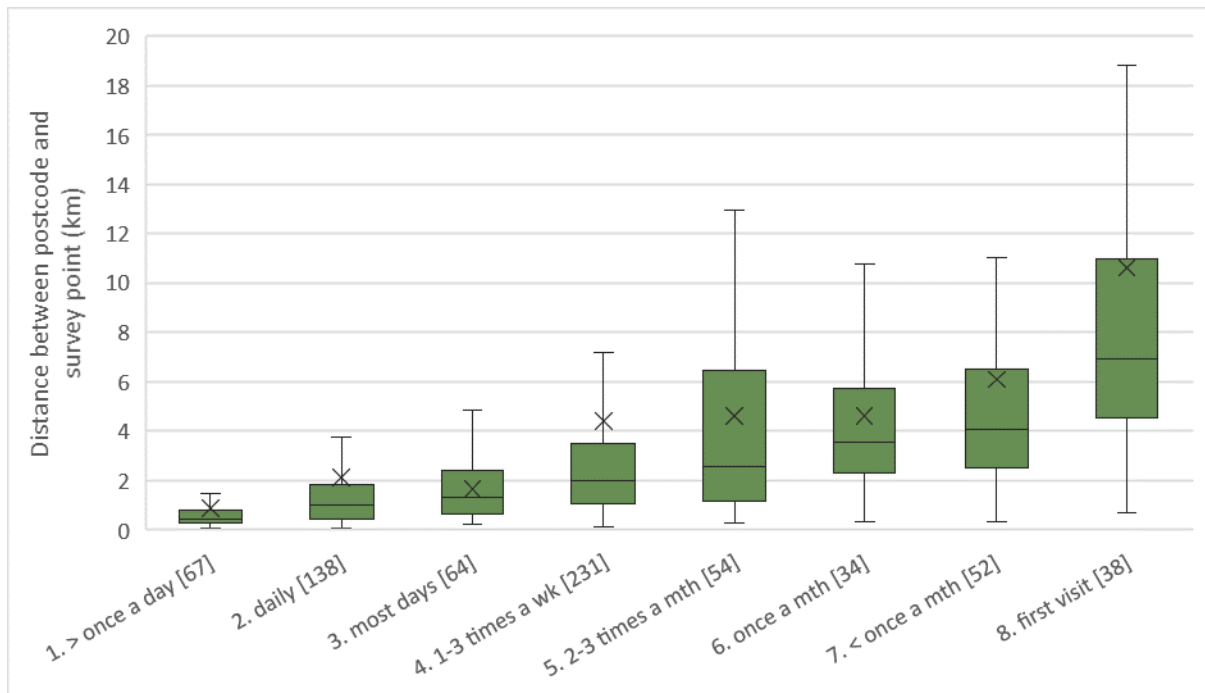

Figure 10: Boxplots to show the interviewee distances between home postcodes and sites for each category of visit frequency (as used in Figure 5). Values in brackets indicate the sample size for each group. Median values for these were; 1. More than daily visitors, 0.4 km, 2. Daily visitors, 1.0 km; 3. Most days, 1.3 km; 4.1-3 times a week, 2.0 km; 5. 2-3 times a week, 2.5 km; 6. Once a month, 3.5 km; 7. Less than once a month, 4.1 km; 8. First visit, 6.9 km.

Reasons for visiting

4.41   Interviewees were asked why they chose to visit this site rather than another local site. Reponses were categorised by surveyors into 28 set groups, with a category for "other" and a free text field to record these responses. The questionnaire allowed for multiple responses and interviewees gave on average 2.3 responses.

4.42   Across all survey sites, the most common reason for visiting was that the site was close to home, 245 responses, just 15% of all the multiple responses, but amounting to 35% of interviewees (see Figure 11). This was followed by two factors relating to dogs: the fact that visitors could let the dog off lead (133 interviewees, 19%) and the site being good for dogs (130, 18%). The next most common was well maintained paths (113, 16%) and the other category (99, 14%). The other category included a wide range of responses: with the two most common being for variety (9 interviewees) and circular walks (8 interviewees). The 6th and 7th highest ranked were for large open areas and water features, and all these factors mentioned are key elements in SANG design guidance.

4.43   The pattern observed could differ slightly between sites (see Table 12), although at eight of the fourteen sites, the fact the site was close to home was still the main reason. Those sites where close to home was less important, we would assume have larger draws. At Heather Farm, close to home ranked 5th and the 75th percentile distance to interviewees home was the largest 7.1 km (see Table 11). However, this was not always the case; Chobham water meadows, which had the next highest 75th percentile distance, had 33% of interviewees providing close to home as one of their reason, becoming the top ranked reason at this site.
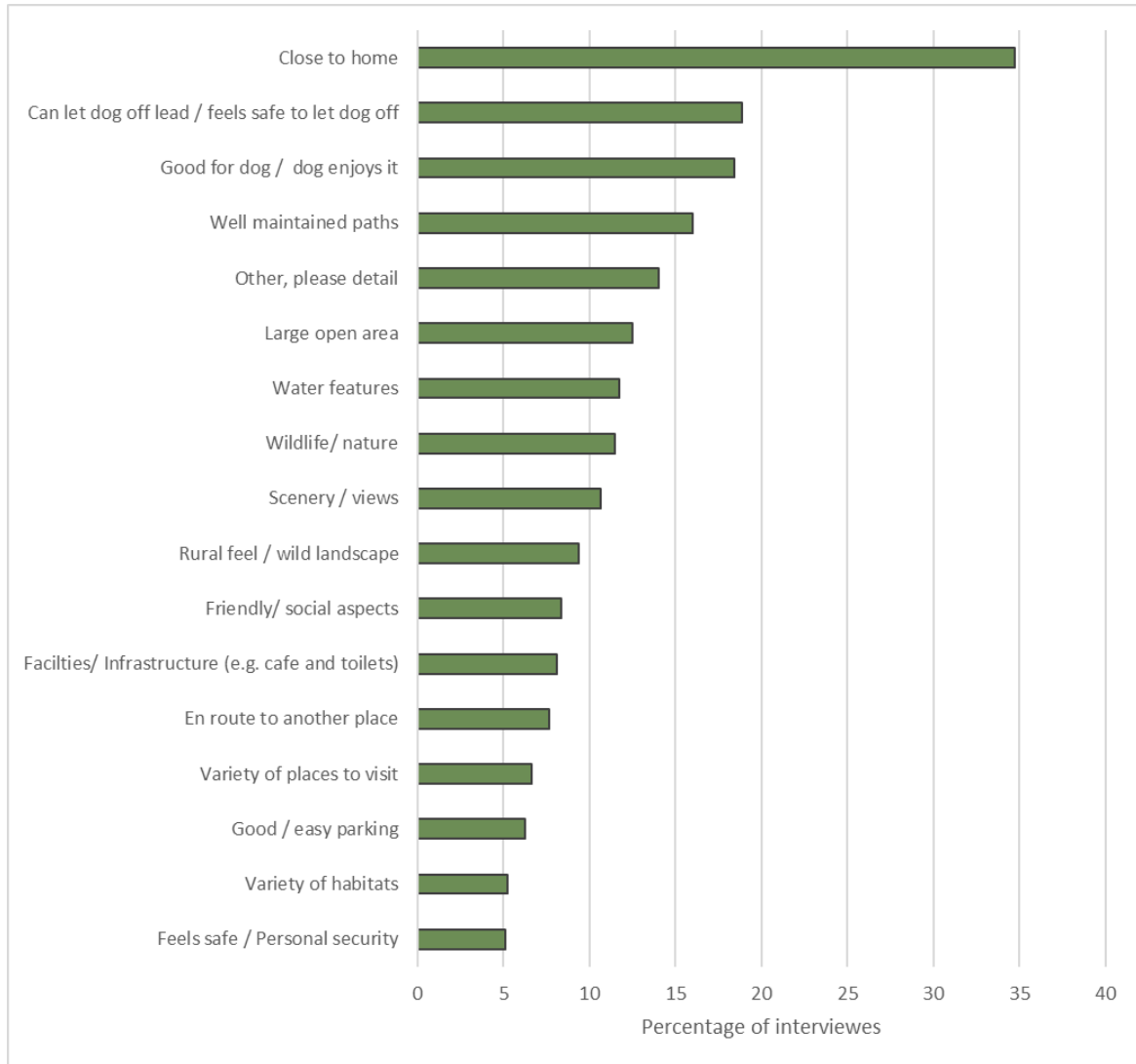
Figure 11: Summary of reasons why interviewees chose to visit this site. Note interviewees could give multiple reasons. Categories given by less than 5% of interviewees are not shown.

Table 12: Top 5 ranked reasons why interviewees chose to visit the current site interviewed at. Values in brackets indicate the percentage of interviewees (note interviewees could give multiple responses).

	1st	2nd	3rd	4th	5th
Ambarrow Court	**Close to home (40)**	Well maintained paths (26)	Good for dog / dog enjoys it (23)	Wildlife/ nature (22)	Can let dog off lead / safe to let dog off (10)
Chobham water meadows	**Close to home (33)**	Other, please detail (22)	Can let dog off lead / safe to let dog off (16)	Not many people (14)	Well maintained paths (12)
Dilly Lane	**Close to home (64)**	Can let dog off lead / safe to let dog off (62)	Friendly/ social aspects (28)	Other (23)	Large open area (23)
Ether hill	**Close to home (31)**	Variety of habitats (31)	Good for dog / dog enjoys it (28)	Large open area (22)	Other (16)
Hare hill	**Close to home (62)**	En route to another place (17)	Other (12)	Limited time/ convenience (12)	Good for dog / dog enjoys it (10)
Hawley Meadows	Water features (47)	Can let dog off lead / safe to let dog off (40)	Other (34)	**Close to home (28)**	Wildlife/ nature (28)
Heather farm	Good for dog / dog enjoys it (32)	Facilities/ Infrastructure (e.g. cafe and toilets) (32)	Well maintained paths (24)	Can let dog off lead / safe to let dog off (21)	**Close to home (17)**
Horseshoe Lake	Water features (65)	**Close to home (45)**	Scenery / views (45)	Wildlife/ nature (39)	Good for dog / dog enjoys it (25)
Larks Hill	Can let dog off lead / safe to let dog off (30)	**Close to home (23)**	Good for dog / dog enjoys it (18)	Well maintained paths (16)	Good / easy parking (9)
Peacock Meadows	Large open area (55)	Can let dog off lead / safe to let dog off (36)	**Close to home (21)**	Good for dog / dog enjoys it (17)	Friendly/ social aspects (15)
Popes Meadow	**Close to home (45)**	Other (30)	Well maintained paths (21)	Water features (19)	Large open area (9)
Shepherd meadows	**Close to home (36)**	Good for dog / dog enjoys it (27)	Well maintained paths (20)	Scenery / views (14)	Water features (13)
Timber Hill	**Close to home (38)**	En route to another place (38)	Nearest greenspace (31)	Good for dog / dog enjoys it (13)	Rural feel / wild landscape (13)
Woodham Common	Well maintained paths (39)	Other (34)	**Close to home (32)**	Good for dog / dog enjoys it (18)	Good / easy parking (13)

Awareness of site

4.44   It was interesting to understand how visitors had first became aware of the site. As with most questions in the interviewing process, the responses were categorised, but included the flexibility for free text. Interviewees could give multiple mechanisms by which visitors first became aware of the site; however, the vast majority (94%) of interviewees gave just a single reason. Categories are shown in Figure 12.

4.45   Overall, roughly two in five of the interviewees (41%) had become aware of the site through local knowledge, specifically word of mouth. Around a quarter of interviewees became aware by "other local knowledge" (26%); mostly from simply living in very close proximity (around 6% of these). A further fifth (20%) had become aware of the site simply from seeing a sign or driving past.

4.46   There were some subtle differences between sites (see Figure 12), possibly related to how well different sites are signposted – for example, 48% of interviewees at Woodham Common were aware of the site by signage. This compared to 79% of interviewees aware of the site by word of mouth at Peacocks Meadow and 66% by "other local knowledge" at Popes Meadow.
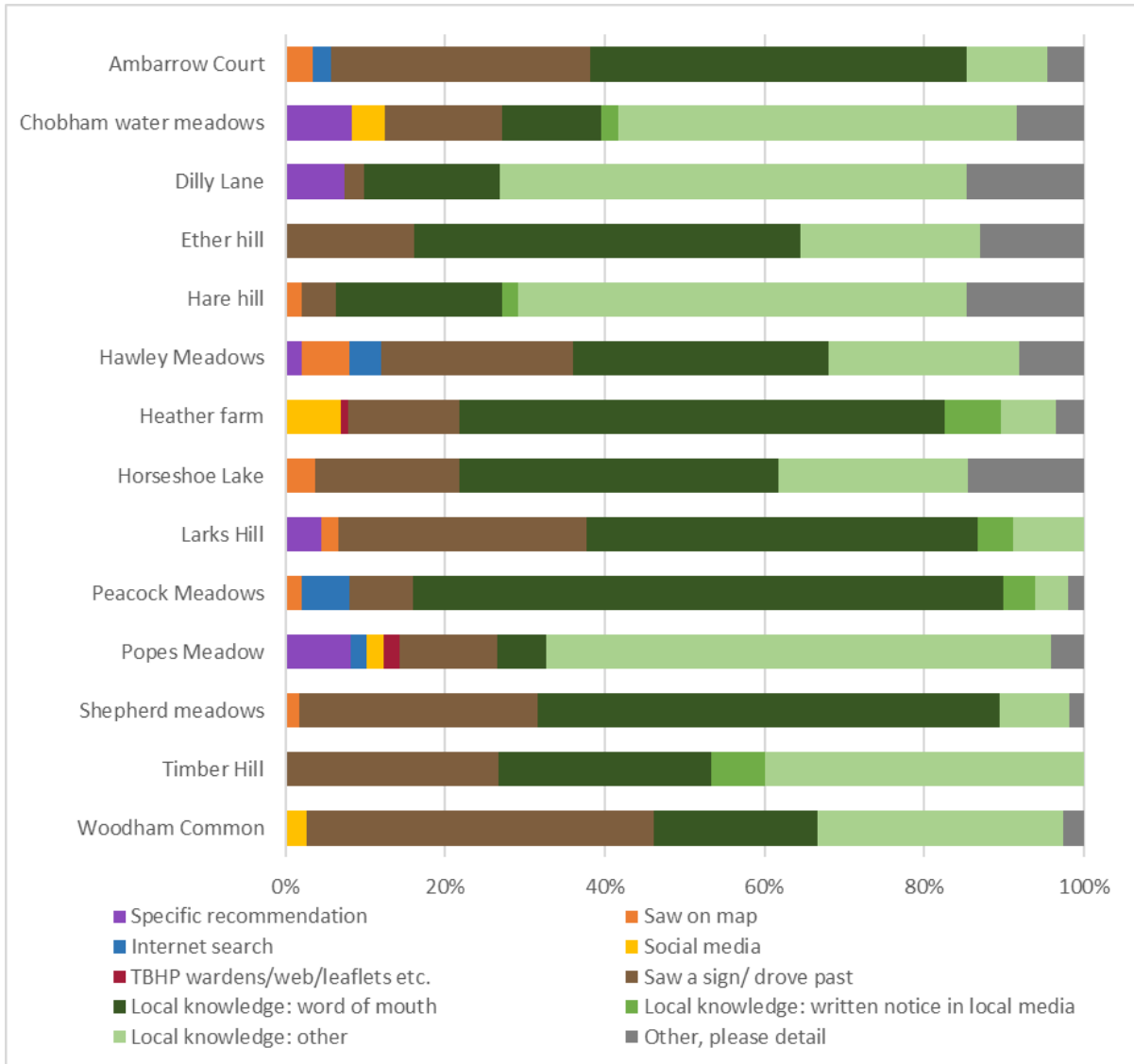
Figure 12: Summary of the ways in which interviewees became aware of the site.

Rating

4.47   Interviewees were asked to rate the sites for the quality of paths, quality of parking, the quality of the site for their dogs and finally as an overall rating. Ratings were asked for between 1 (very poor) and 10 (very good) for each of the four categories.

4.48   Using data pooled from all survey locations the overall average ratings were examined. Highest score across all locations was the rating of the sites for dogs: 8.9 (Standard Deviation ±1.3), followed by 8.6 for the site overall (SD±1.1), 8.1 for parking (SD±1.9) and 7.4 for paths (SD±1.7). The degree of variability in the ratings could be examined from the standard deviation

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values (SD). Highest values and therefore variability in the individual interviewee's scores were observed for parking rating, followed closely by paths.

4.49   Ratings at individual sites for each of the three main aspects are shown in Figure 13. Ratings in Figure 13 have been simplified to a 0 to 5 star rating for easier visualisation. Notable poor scores for paths were recorded at Chobham water meadows (average score of 6.1), followed by Hare Hill (6.4) and Hawley Meadows (6.6). Scores for parking were worst at Dilly Lane (score of 1.3, 8% of interviewees arrived on foot), and at Timber Hill (4.8, 50% arrived on foot). It should be noted that at Hare Hill no respondents gave a parking score, rather than a 0 score. Timber Hill was the only site to score below 6.5 for dogs, with a rating of 4.6.

Figure 13: Ratings given to each site by interviewees for the quality of paths, quality of parking and quality of the site for dogs. Interviewee scores from 1 (very poor) to 10 (very good) were converted to 0 to 5 values for simplicity. Note Hare Hill was not scored for parking rather than being rated as 0.

4.50   Full details of the ratings given are presented in Table 13. However, it was unexpected that overall ratings were often poorly related to individual scores. We calculated an averaged rating using the mean of individual ratings for each of the three topics and this showed little relation to the interviewee's overall rating score. This averaged score showed greater variation and it was thought to be perhaps more interesting to highlight sites which have issues. These averaged scores are shown in Map 9.

Table 13: Details of interviewees ratings for paths, parking, dogs and overall. Final column is an average of the ratings for paths, parking and dogs.

	Interviewee rating for paths	Interviewee rating for parking	Interviewee rating for dogs	Interviewee rating for site overall	Averaged path/ parking/ dog rating
Ambarrow Court	7.5	8.0	7.0	8.2	7.5
Chobham water meadows	6.1	7.5	8.0	8.1	7.2
Dilly Lane	7.0	1.3	8.7	8.7	5.6
Ether hill	6.9	8.2	8.1	8.5	7.7
Hare hill	6.4	-	8.1	8.1	7.3
Hawley Meadows	6.6	7.1	8.9	8.7	7.5
Heather farm	8.1	6.3	8.0	8.5	7.5
Horseshoe Lake	6.7	8.2	8.7	8.9	7.9
Larks Hill	8.1	8.3	7.8	8.7	8.0
Peacock Meadows	8.7	8.9	9.2	9.2	8.9
Popes Meadow	8.1	6.0	6.6	8.6	6.9
Shepherd meadows	7.2	7.9	6.9	7.9	7.3
Timber hill	7.1	4.8	4.6	8.5	5.5
Woodham Common	8.5	8.5	8.3	8.8	8.4

Map 9: The overall averaged rating of each surveyed SANG.

Legend

⭐ Rating

6.8

7.7

8.5

7.4

6.9

7.2

7

6.9

5.8

7.6

7.2

8

7.4

6

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4.51 There was a suggestion that there may be some correlation between the averaged rating and site size, as visualised in Figure 14. However, the relationship between these two factors was not statistically significant (Pearson's =0.492, p =0.074), and this relationship was worse when considering interviewee's overall rating (Pearson's =0.139, p =0.635).

4.52 There also appeared, at a glance, to be a relationship between rating and the Q3 distance of interviewees – i.e. the distance they were willing to travel. However, this was also not a statistically significant relationship (Pearson's = -0.083, p=0.777).
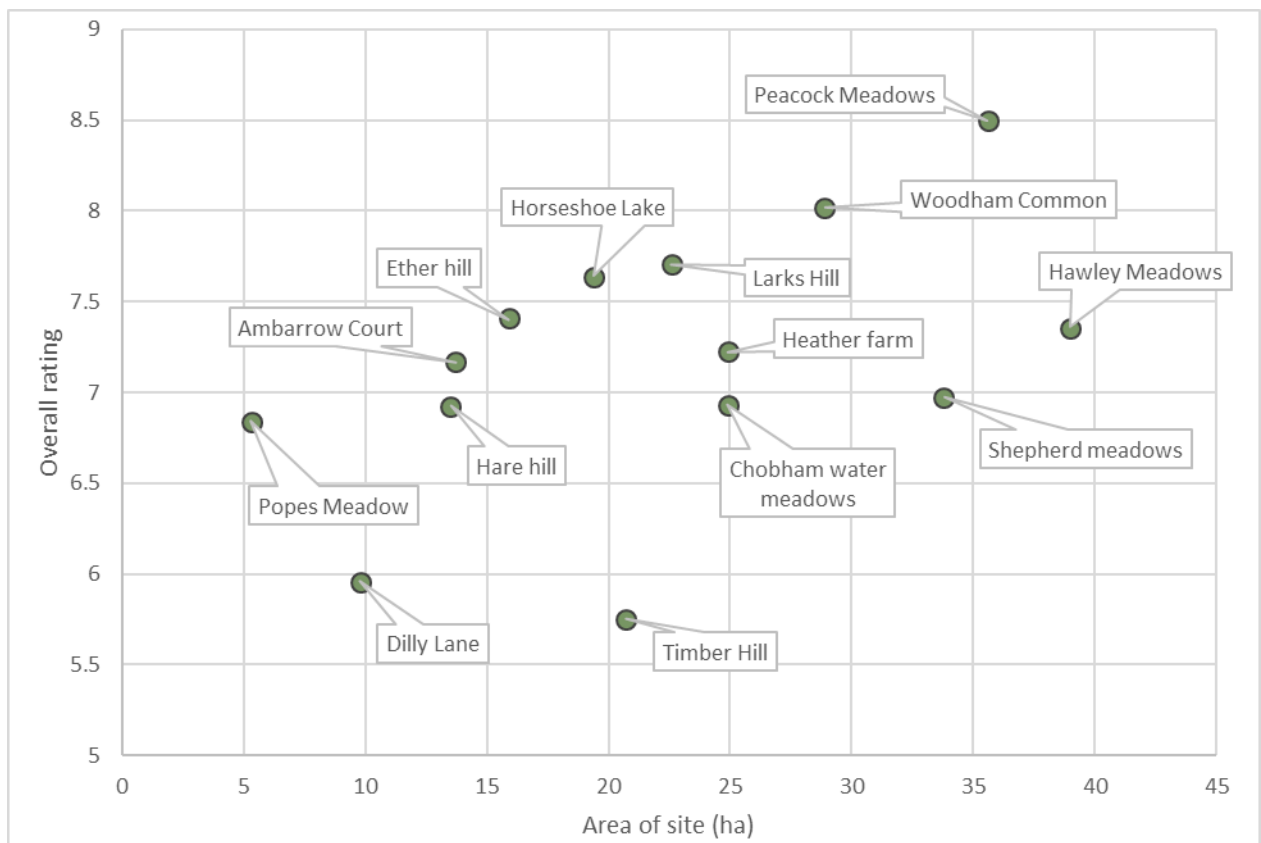

Figure 14: Scatterplot to show the relationship between the averaged rating and the area of the site.

Suggested improvements

4.53   Surveyors asked interviewees to suggest what improvements, if any, they would like to see for the site where they were interviewed. Responses were categorised using pre-set, expected answers, but a free text box was used to record other suggestions. These free text answers were examined, and frequent themes extracted to be used in conjunction with the pre-set categories.

4.54   Across all surveys, just under a third of the interviewees (219 interviewees, 31%) suggested that no improvements were necessary. Overall, key improvements shown in Figure 15 were a need for better paths (170, 24%), more dog poo bins/ dog fouling issues (85, 12%), more car parking (43, 6%), new or better/safer fencing (36, 5%), better paths/more choice (33, 5%) and general maintenance, repairs etc. (29, 4%).
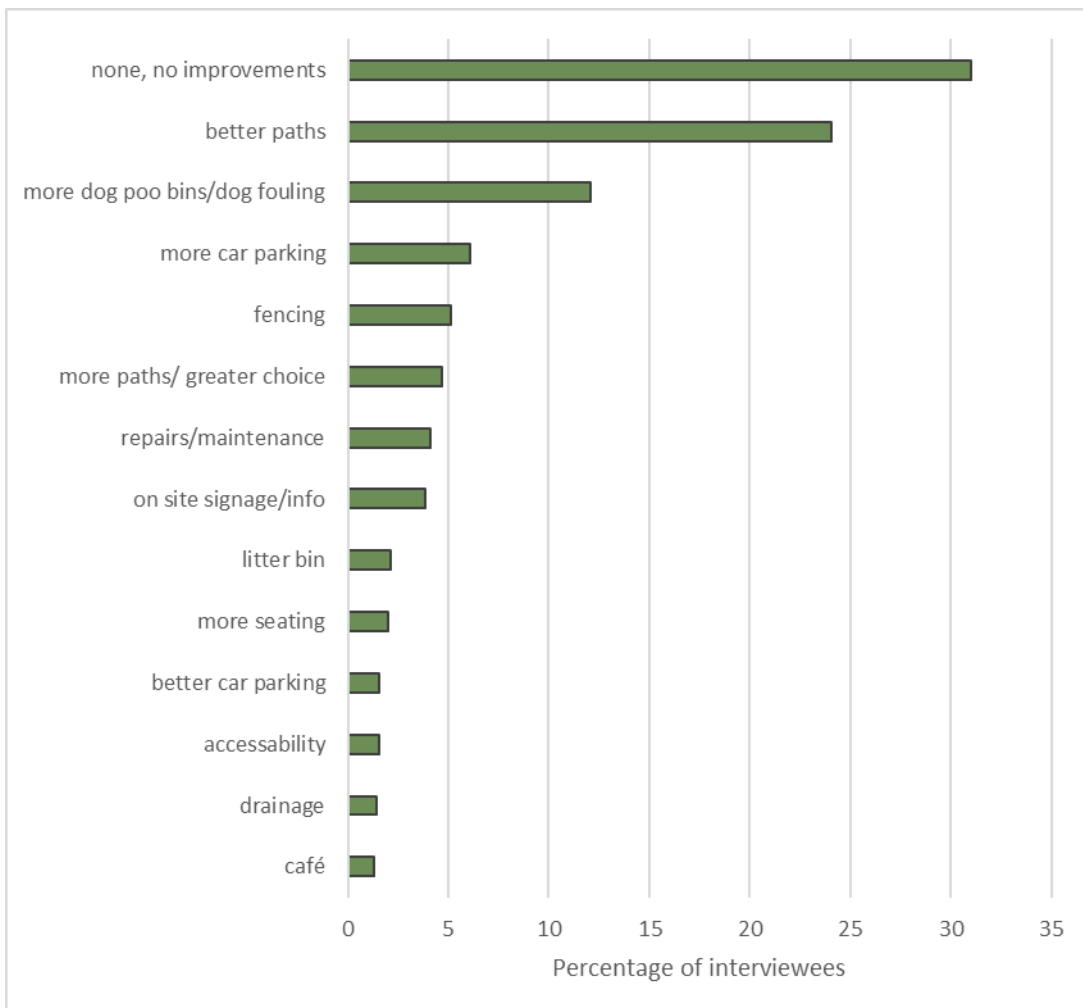

Figure 15: Summary of interviewees suggested improvements. Improvements stated by less than 1% of interviewees are not shown

4.55   Other less frequently given suggestions were: more on-site information and signage, litter bins, more seating, better car parking and better accessibility. It was notable that features for dogs (e.g. water features, dog agility; both just 3 interviewees) were rarely mentioned; other than new fencing or improvements to poor existing fencing.

4.56   There were clearly particular suggestions at individual sites where issues exist and therefore the top five suggestions at each location is provided in Table 14. The relative percentage of interviewees who stated no improvements were necessary was a useful indicator for sites with issues, and the ranking of this is highlighted in bold in Table 14.

4.57   One of the main suggestions at sites appeared to be for improvements to paths, (which includes a greater choice of paths). The locations where these ranked highest (either ranked 1st or 2nd after no improvements) were: Ambarrow Court, Chobham water meadows, Ether Hill, Hare Hill, Hawley Meadows Horseshoe Lake, Shepherd Meadows and Timber Hill. Better signage or general information appears to be another important suggestion at Chobham water meadows. The other remaining highest ranked suggestions were for new fencing or improvements to existing fencing at Dilly Lane and Larks Hill, more dog poo bins/dog fouling issues at Hare Hill and Peacock Meadows, and finally litter bins at Woodham Common.

Table 14: Top 5 suggested improvements at sites. Values in brackets indicate the percentage of interviewees (note interviewees could give multiple responses). No improvements are highlighted in bold to indicate the relative ranking of this at the different sites.

	1st	2nd	3rd	4th	5th
Ambarrow Court	**none, no improvements (47)**	better paths (21)	more dog poo bins/dog fouling (12)	on site signage/info (6)	more paths/ greater choice (3)
Chobham water meadows	better paths (51)	on site signage/info (27)	more dog poo bins/dog fouling (16)	**none, no improvements (12)**	more paths/ greater choice (12)
Dilly Lane	**none, no improvements (36)**	fencing (21)	better paths (10)	more dog poo bins/dog fouling (5)	repairs/maintenance (5)
Ether hill	**none, no improvements (38)**	better paths (25)	more dog poo bins/dog fouling (6)	more paths/ greater choice (6)	drainage (6)
Hare hill	better paths (43)	more dog poo bins/dog fouling issues (26)	**none, no improvements (19)**	repairs/maintenance (10)	more paths/ greater choice (5)
Hawley Meadows	better paths (53)	**none, no improvements (23)**	more dog poo bins/dog fouling issues (19)	better car parking (19)	repairs/maintenance (9)
Heather farm	more car parking (29)	**none, no improvements (27)**	better paths (21)	more paths/ greater choice (11)	more dog poo bins/dog fouling issues (9)
Horseshoe Lake	better paths (41)	**none, no improvements (24)**	more dog poo bins/dog fouling issues (18)	more car parking (10)	café (8)
Larks Hill	**none, no improvements (34)**	fencing (7)	more dog poo bins/dog fouling issues (5)	more car parking (5)	better paths (2)
Peacock Meadows	**none, no improvements (28)**	more dog poo bins/dog fouling issues (28)	on site signage/info (4)	more seating (4)	better paths (2)
Popes Meadow	fencing (21)	**none, no improvements (19)**	more dog poo bins/dog fouling issues (11)	more seating (11)	repairs/maintenance (9)
Shepherd meadows	**none, no improvements (34)**	better paths (32)	repairs/maintenance (23)	more dog poo bins/dog fouling issues (16)	litter bin (7)
Timber Hill	**none, no improvements (75)**	better paths (13)	more seating (6)	n/a	n/a
Woodham Common	**none, no improvements (47)**	litter bin (18)	better paths (11)	fencing (8)	more dog poo bins/dog fouling issues (8)

Alternative locations visited

4.59   The surveyors asked interviewees to state one location they would have visited, had they not been able to visit the interview site on that day. Overall, just 5% of interviewees (33 interviewees) suggested there was nowhere else they would have visited and a further 1% (7) were not sure or did not know.

4.60   Of the remaining 94% (604) who named a site this first alternative site choice was recorded and the surveyor asked for a two further sites which they also visited for their current activity. This provided 1,438 responses, with 642 unique site names in total, though many were variants which referred to the same sites.

4.61   Across all survey locations, the top sites were; Horsell common (8%, 117 responses), Chobham common (6%, 82), Virginia water (5%, 66) and Cabbage Hill (3%, 44). Figure 16 uses a word cloud to visualise the names given by more than 5 interviewees (the 28 most common). Top five named sites at each survey location are given in Table 15.

Figure 16: Word cloud of all first named alternative locations. The size of each word reflects the number of interviewees naming a site. Words given by fewer than 5 interviewees are not shown.

SPA and SANG sites

4.62   The names were examined by TBHP staff who have a better understanding of local or alternative names and parts of sites to categorise these into three groups; SPA, SANG and other.

4.63   The top five named SANG sites across all interviewees were Cabbage Hill (3%, 44 responses), Horseshoe Lake (2.5%, 37), Ottershaw Memorial Park (1.7%, 25), Lilly Hill park (1.5%, 22) and Homewood park (1.3%, 19). While the top five named SPA sites were: Horsell common (8%, 117 responses), Chobham common (6%, 82), Swinley forest (3%, 39), Wildmoor Heath (2%, 30) and Crowthorne woods (1.3%, 20).

4.64   However, there were very clear differences in the top five alternatives between individual survey locations, as shown in Table 15. SANG and SPA often ranked differently, usually informed by their proximity.

Table 15: Top 4 alterative named sites at each survey location. Values in brackets indicate the percentage of responses (note interviewees could give multiple responses). Names in green bold text indicate SPA sites, those in orange bold text indicate SANG sites.

Site	1st	2nd	3rd	4th
Ambarrow Court	**Horseshoe lake (16)**	Simon's wood (9)	**Wildmoor Heath (8)**	**Crowthorne woods (4)**
Chobham water meadows	**Chobham common (25)**	**Horsell common (10)**	Virginia water (8)	**Heather farm wetlands (4)**
Dilly Lane	**Hazeley heath (27)**	footpaths (5)	Fleet pond (3)	Basingstoke canal (3)
Ether hill	**Horsell common (18)**	**Chobham common (12)**	Virginia water (12)	**Homewood park (11)**
Hare hill	**Ottershaw Memorial Park (19)**	**Horsell common (18)**	**Chobham common (8)**	**Strawberry fields (8)**
Hawley Meadows	**Barossa (9)**	**Swinley forest (6)**	**Hawley lake (6)**	**Shepherd meadows (5)**
Heather farm	**Horsell common (17)**	**Chobham common (12)**	Virginia water (7)	Basingstoke canal (5)
Horseshoe Lake	**Ambarrow Court (8)**	**Wildmoor Heath (7)**	**Yateley common (6)**	Virginia water (5)
Larks Hill	**Cabbage Hill (20)**	**Lilly Hill park (14)**	**Swinley forest (10)**	**Frost folly (6)**
Peacock Meadows	**Cabbage Hill (15)**	**Swinley forest (12)**	**Lilly Hill park (5)**	Virginia water (3)
Popes Meadow	**Cabbage Hill (23)**	**Lilly Hill park (7)**	**Jocks lane (7)**	Dinton pastures (4)

55

Site	1st	2nd	3rd	4th
Shepherd meadows	**Horseshoe lake (8)**	**Hawley meadow (8)**	**Barossa (6)**	**Wildmoor Heath (6)**
Timber Hill	**Ottershaw Chase (15)**	**Horsell common (9)**	**Chobham common (9)**	**Ottershaw Memorial Park (9)**
Woodham Common	**Horsell common (26)**	Basingstoke canal (8)	**Heather farm (7)**	Pyrford Common (7)

4.65   Across all sites, using first named alternatives, 29% of interviewees (184 interviewees) named SANG sites, 34% (217) named SPA sites and 38% (243) named other sites. Considering all alternative sites named, including the second and third choices which were provided by roughly 67% and 44% of interviewees respectively, the proportions were very similar. Across all site choices 26% of responses (370 responses) related to SANG sites, 32% (466) to SPA sites and 42% (602) to named other sites.

4.66   When considering variation between different activities, this is highly influenced by group sample size. The high proportion of dog walkers in interviewees, mean the percentages discussed above are extremely similar - across all site choices, 27% of responses from dog walkers related to SANGs, 33% to SPA and 40% to other sites. For comparison, the second largest activity group, walkers, showed a similar level of responses naming SPA sites, but a greater preference for other sites than SANGs – 18% of responses related to SANGs, 30% to SPA and 52% to other suggests.

4.67   This proportion varied by survey location and is shown in Map 10. There were four sites where the percentage of named alternative sites were 50% or more SANGs. These were Larks Hill (54% of responses were SANGs), Popes Meadow (53%), Hare Hill (50%) and Timber Hill (50%). The lowest levels were recorded at Dilly Lane (8%) and Heather Farm (10%). The percentage of responses which related to SPA sites was greatest at Chobham water meadows (48%), Hawley Meadows (41%) and Heather Farm (40%).

Map 10: The proportion of SANG, SPA and other named sites in the list of alternative locations given by interviewees at each site.

Legend

Alternative sites visited:

- SANG
- SPA
- other

100
50
25
5

0   2   4   6 km
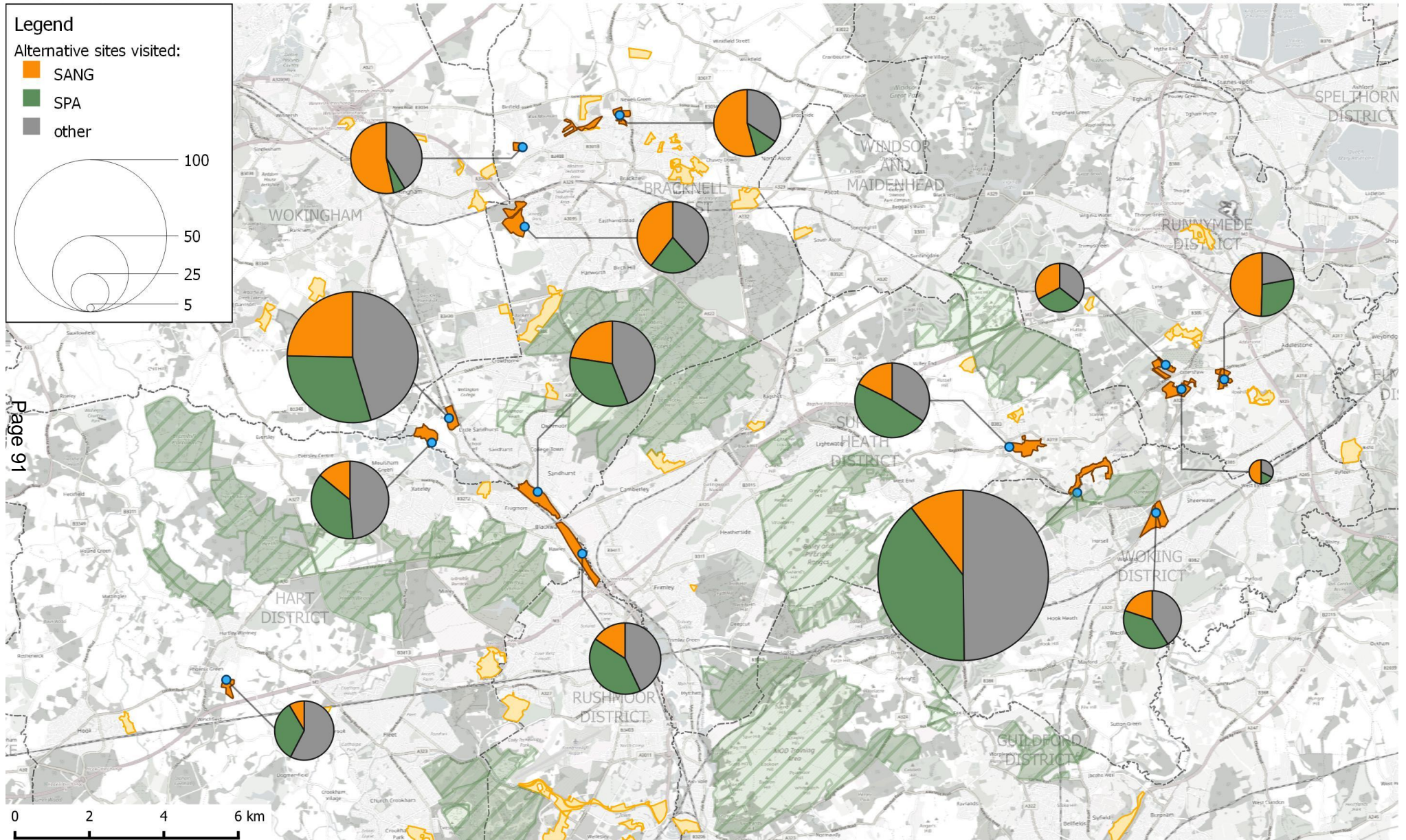
Proportion of visits

4.68   Because the current site is often one of several which is utilised by the interviewee, we wished to understand the relative proportion of visits interviewees undertook at these sites. The interviewees were asked to state roughly what percentage of their visits, for the activity they were currently undertaking, take place at the current site and responses assigned to quarters.

4.69   Overall, it was suggested that very few interviewees, around 8% of interviewees, undertook all their visits at the current site. Just under a quarter (162 interviewees, 23%) suggested that most of their visits took place here (around 75% or more of visits) and just over a quarter (194, 27%) suggested that over half of their visits took place here (50% to 75% of visits). However, there was still around a quarter of interviewees (159, 23%) who used the site for less than 25% of their visits for the current activity.
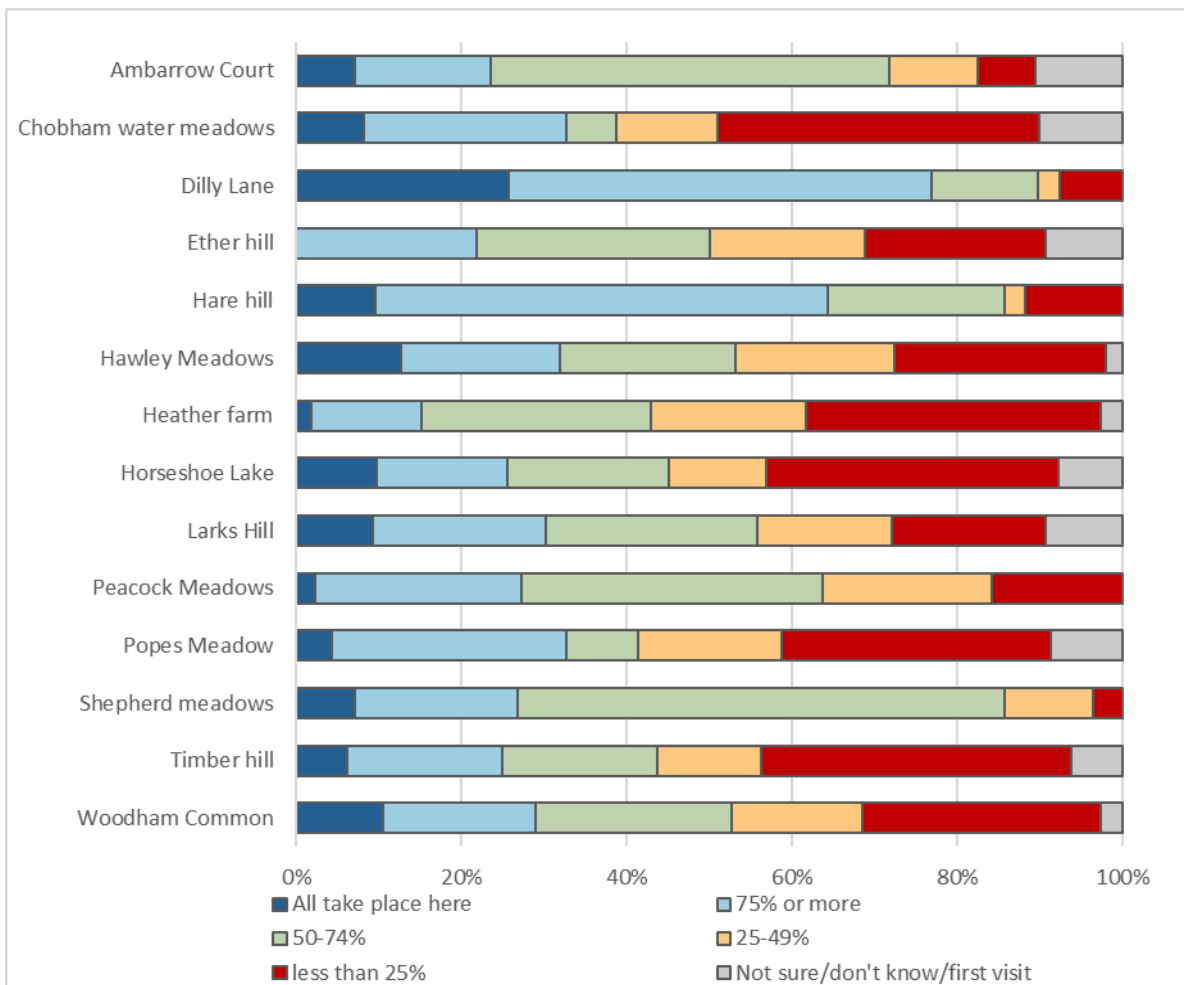

Figure 17: Summary of interviewees' proportion of visits which take place on site.

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4.70   There were some slight differences between sites, as seen in Figure 17, with some of the most consistent and site faithful visitors at Dilly Lane, Hare Hill and Shepherds Meadows. Conversely at sites such as Horseshoe Lake, Chobham water meadows, Popes meadow and Timber Hill most interviewees suggested they visited their other alternative sites more often than the current site.

Reasons for visiting alternative visits

4.71   In a similar method to the reasons why interviewees chose to visit their current site, interviewees were asked to give the reasons why they chose these alternative sites. In the same way as for reasons on the current site, responses were recorded to pre-set categories and any reason which did not fit recorded in free text. Interviewees could give multiple responses as to why they visited their alternative sites.

4.72   Across all data, the main reason why interviewees chose to visit an alternative site was to have variety of places to visit, as given by 145 interviewees, 21% of interviewees. This was followed closely the fact sites are close to home (128, 18%) and because they offer large open areas (115, 16%).

4.73   The reasons given were examined separately for those who gave a SANG site as their first named alternative and for those who gave a SPA site. The percentage of interviewees for each reason in these categories are presented in Figure 18. For those gave a SANG as their first alternative the key factors were:

- a variety of places to visit (46, 7%)
- large open area (35, 5%)
- close to home (31, 4%)
- can let dog off lead/ feels safe to let dog off (30, 4%)
- and variety of habitats (22, 3%).

4.74   While for those who gave a SPA location as their first choice these were:

- a variety of places to visit (56, 8%),
- large open area (42, 6%),
- close to home (41, 6%),
- bigger/ longer walks (35, 5%)
- and can let dog off lead/ feels safe to let dog off (25, 4%).

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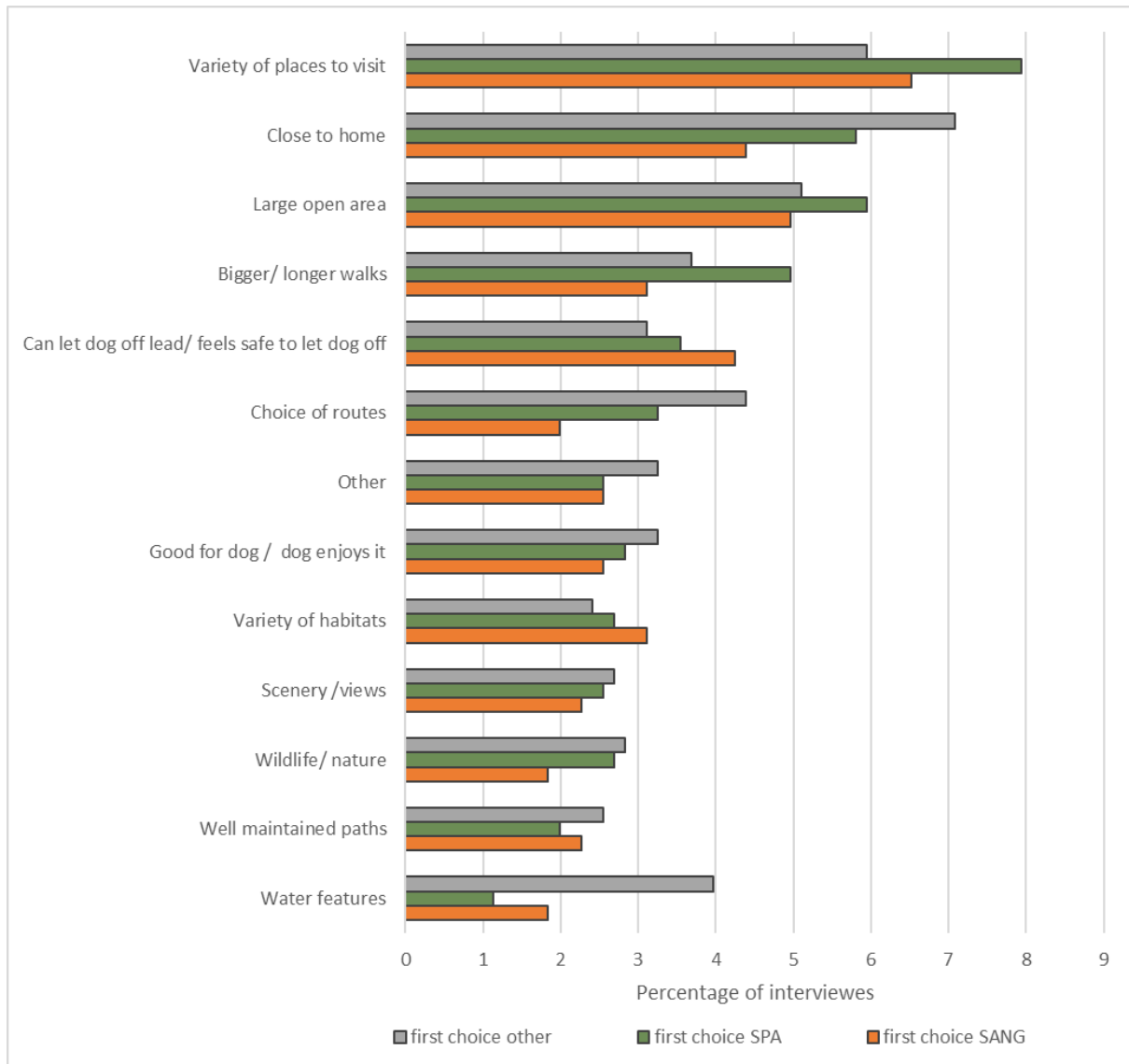
Figure 18: Summary of reasons why interviewees chose to visit their alternative sites, shown separately for interviewees whose first named site was a SANG, SPA or other site. Note interviewees could give multiple reasons. Categories given by less than 7% of interviewees overall are not shown. Reasons are sorted by the total percentage of interviewees across all types.

Time at current address

4.75   Interviewees were finally asked to state how long they had lived at their current address. The responses were given in years, but where rough values, i.e. months or starting years given (e.g. "since 1965"), these were converted into a number of years or a decimal number of years for months.

4.76   On average an interviewee had lived within the area for roughly 19 years. But there were clear differences between sites, as shown in Figure 19. At

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Peacock Meadow, Popes Meadow and Dilly Lane, the average time at current address was 14 years or less (mean), which appears related to the recent housing growth immediately adjacent to sites.
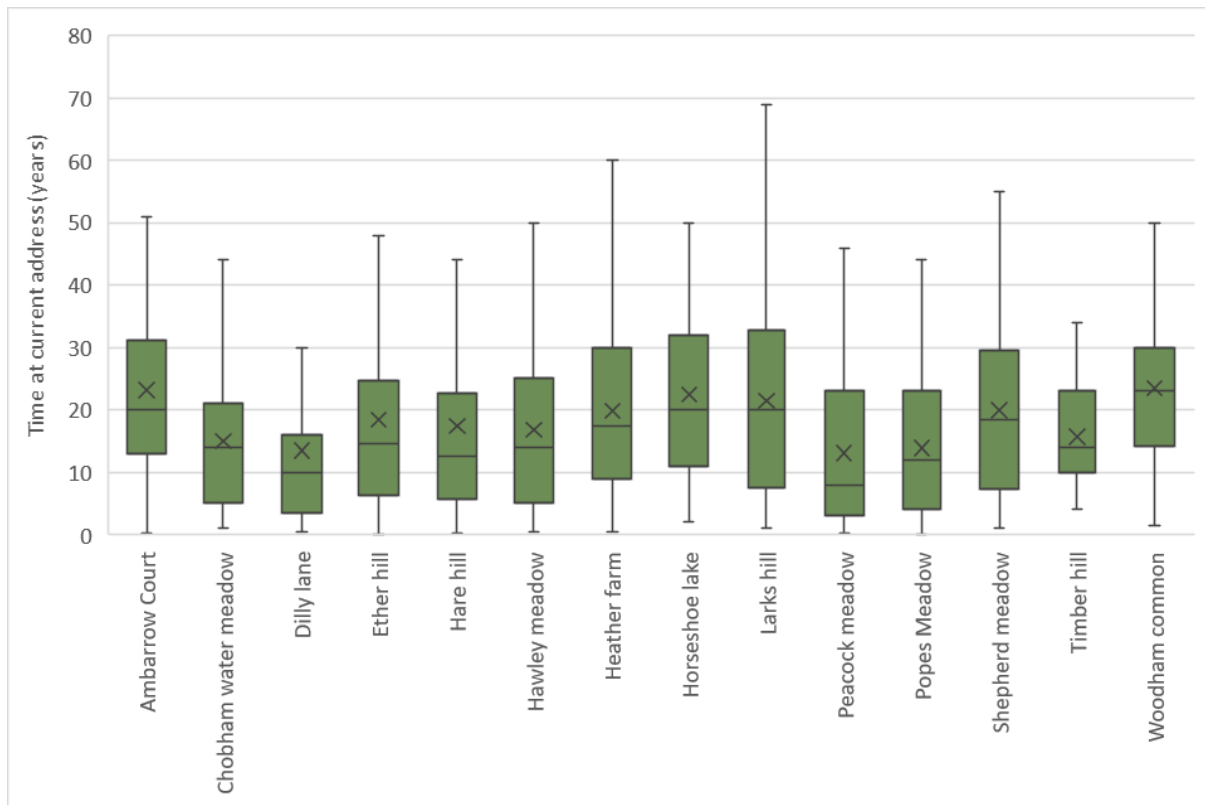

Figure 19: Boxplots to show the range of values recorded for the interviewee's time at their current address. Boxes show the range between Q1 (25%) and Q3 (75%), cross line within this indicates the median. Whiskers indicate the range of values, excluding outliers. The cross indicates the mean.

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5. Discussion and recommendations

Surveying methodology and data collected

5.1 The methodology used appears robust. Interviewees are those people who were using the site on that day and were unaware surveys were due to take place, therefore the pool of interviewees was unlikely to be biased. The tally counts used to record visitor flows are a useful snapshot of the access which can easily be recorded while on site alongside the interviewing. A wide range of questions were asked in a relatively short interview, resulting in a good amount of data collected and the questions appear robust.

5.2 The surveys were conducted during core winter visiting hours and cover both weekdays and weekend days. There was greater surveying effort on weekdays, which has to be accounted for in some analysis, but simple analysis of visitor numbers suggests this may work well to represent the weekly pattern of use.

5.3 Examination of the data collected suggests these surveys provide a good baseline of data.

Recommendations

5.4 There are no critical recommendations in relation to the methodology and data collected. However, one suggestion could be to add simple categories to record the different types of people in the tally counts. In our surveys we count the numbers of people, dogs and minors in tally counts and sometimes even count the number of runners or cyclists. These counts help assess the typical site users and examine the site users who may be underrepresented in the interviewees, such as lone minors for example at sites where there is a shortcut to a school (as these are not interviewed) or runners and cyclists who are often hard to stop during interviews.

5.5 In addition, we always record the number of people who refused to take part in interviewees and any notes on who these people were. There will have been a number of people who were approached and refused to take part. There is usually a bias in the visitors who may refuse to take part in interviews, for example cyclists, runners, commuters or shoppers. As such based on the interview data alone this group may be under-represented.

5.6 In Footprint surveys we also record the number of people who were approached but had already been interviewed in an earlier session. These

visitors are not interviewed again, but are noted and indicate the sites which are used very regularly by a small group of people, and the metric can be compared between sites.

5.7   Finally, it was suggested that some of the survey sessions were drifting out of the core winter months. The first survey was conducted on the 21st September and the last survey on the 19th of April. Visitor patterns and daylight patterns are becoming very different in the first and last few months of these periods. Surveys are often spread over a wide range of dates minimising the influence of this, but the dates could still be truncated to a shorter window.

Visitor survey conclusions

5.8   The data collected is highly informative and can be used to assess the levels of use on SANG sites, the visitor patterns, draw of the site, factors liked, opinions on quality of the site, and the alternative sites visited. This information can be examined, and the conclusions drawn use to information visitor management.

5.9   The individual visitor metrics are often interlinked, but some clear patterns are able to be drawn and can be used to monitor visitor patterns and comment on SANG functioning. As an example, Chobham water meadows has a reasonable level of visitors using the site, including dog walkers (82% of interviewees). These people are often regular visitors (24% on site daily or more frequently), and visit because the site is close to home, but are coming from quite a large area (three quarters within 6.3 km). However, many of these visitors use other sites, around two fifths conduct less than a quarter of their visits to this site. The other sites used frequently include SPA sites (48% of named alternative sites were to the SPA), such as Chobham and Horsell common. One of the reasons other sites are used is highlighted through the poor rating interviewees gave the site for the quality of paths (6 out of 10), and many interviewees suggesting improvements such as better path surfacing (51%), more paths/choice of paths (16%) and more dog poo bins (14%).

5.10   From such baseline descriptive information on sites some clear immediate actions with regards to access management can be undertaken. With more future data long-term patterns will become apparent and provide greater monitoring and management conclusions drawn.

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Appendix 1:

Good am/pm. Please could you spare me a few minutes to answer some questions regarding your visit today. This is part of a study of visitor access patterns in this area for the TBHP.

Q1 **What is the main activity you are undertaking today?** *Tick closest answer. Do not prompt. Single response only.*
- ◯ Dog walking
- ◯ Commercial dog walking
- ◯ Walking
- ◯ Jogging/ Running/ Power walking
- ◯ Outing with family
- ◯ Cycling/ Mountain Biking
- ◯ Bird/ Wildlife watching
- ◯ Enjoy scenery
- ◯ Photography
- ◯ Meet up with friends
- ◯ Horse riding
- ◯ Short-cut through site
- ◯ Other, please detail:

Further details/ Other free text:

Q2 **How long have you been visiting this SANG?** *Tick closest answer, single response only. Only prompt if interviewee struggles.*
- ◯ First visit
- ◯ Less than 1 year
- ◯ Between 1 and 5 years
- ◯ Between 6 and 10 years
- ◯ Between 11 and 15 years
- ◯ Between 16 and 20 years
- ◯ 20 years and over
- ◯ Unsure / Don't know

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Q3   **How long have you spent / will you spend at here today?** *Single response only.*

○ Less than 30 minutes

○ Between 30 minutes and 1 hour

○ 1-2 hours

○ 2-3 hours

○ More than 3 hours

Q4   **How frequently do you visit this site?** *Tick closest answer, single response only. Only prompt if interviewee struggles.*

○ More than once a day

○ Daily (300+ visits a year)

○ Most days (180+ visits)

○ 1 to 3 times a week (40-180 visits)

○ 2 to 3 times per month (15-40 visits)

○ Once a month (6-15 visits)

○ Less than once a month (2-5 visits)

○ Don't know

○ First visit

○ Other, please detail

Further details:

Q5   **Which days of the week do you tend to visit this site?** *Tick only one, tick closest answers, do not prompt*

○ Weekdays

○ Weekends

○ Equally over weekends and weekdays

○ First visit

○ Other, please detail:

Further details:

[   ]

Q6   **Do you tend to visit this place more at a particular time of year for [**insert given activity**]?** *Multiple answers ok.*

☐ Spring (Mar-May)

☐ Summer (Jun-Aug)

☐ Autumn (Sept-Nov)

☐ Winter (Dec-Feb)

☐ Equally all year

☐ Don't know

☐ First visit

Q7   **What form of transport did you use to get here today?** *What form of transport did you use? Single response only.*

⬭ Car / van

⬭ On foot

⬭ Public transport

⬭ Bicycle

⬭ Other, please detail

Further details:

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┌──────────────────────────────────────────────────────────────────┐
│                                                                    │
└──────────────────────────────────────────────────────────────────┘
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Q8 **Why did you choose to visit here, rather than another local site?** *Tick all responses given by visitor in the 'other' column. Do not prompt, tick closest answers. Where possible categorise, otherwise use text box and for further information.*

	Choice
Don't know / others in party chose	◯
Close to home	◯
En route to another place	◯
Nearest greenspace	◯
No need to use car	◯
Good / easy parking	◯
Limited time/ convenience	◯
Quick & easy travel route	◯
Choice of routes	◯
Variety of places to visit	◯
Feels safe / Personal security	◯
No traffic noise	◯
Not many people	◯
Facilties/ Infrastructure (e.g. cafe and toilets)	◯
Well maintained paths	◯
Good for families	◯
Friendly/ social aspects	◯
Bigger/ longer walks	◯
Large open area	◯
Good for dog / dog enjoys it	◯
Can let dog off lead / feels safe to let dog off	◯
Rural feel / wild landscape	◯
Scenery / views	◯
Wildlife/ nature	◯
Variety of habitats	◯
Water features	◯
Habit/familiarity	◯
Suitability of area in given weather conditions	◯

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Other, please detail ○

Further details:

Q9   **What, if any improvements would you like to see on the site?** *Tick all that apply. Do not prompt. Use free text box for additional influences and / or detail*

- [ ] None, no improvements
- [ ] More dog poo bins
- [ ] Better dog fencing
- [ ] Access to water for dogs
- [ ] Dog agility/ training areas
- [ ] Better paths (including surfacing)
- [ ] More paths/ greater choice of paths
- [ ] Better signage
- [ ] More on- site information
- [ ] Better access to the site
- [ ] More seating
- [ ] More car parking (e.g. more spaces)
- [ ] Better car parking (e.g. surfacing)
- [ ] Other (give details)

Other/further details:

| |
| |

Q10   How would you rate the paths of this site, from 1 to 10 where 1 is very poor and 10 is excellent?

	1: Very Poor	2	3	4	5: Ave rage	6	7	8	9	10: Ex cellent
Rating	○	○	○	○	○	○	○	○	○	○

Q11   **How would you rate the parking at this site, from 1 to 10 where 1 is very poor and 10 is excellent?**

	1: Very Poor	2	3	4	5: Ave rage	6	7	8	9	10: Ex cellent
Rating	○	○	○	○	○	○	○	○	○	○

Q12   How would you rate this site for dogs, from 1 to 10 where 1 is very poor and 10 is excellent?

	1: Very Poor	2	3	4	5: Ave rage	6	7	8	9	10: Ex cellent
Rating	○	○	○	○	○	○	○	○	○	○

Q13   How would you rate this site overall, from 1 to 10 where 1 is very poor and 10 is excellent?

	1: Very Poor	2	3	4	5: Ave rage	6	7	8	9	10: Ex cellent
Rating	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Q14   **What proportion of your weekly visits for [given activity] take place here compared to other sites. Can you give a rough percentage?** *Do not prompt*

◯ All take place here
◯ 75% or more
◯ 50-74%
◯ 25-49%
◯ less than 25%
◯ Not sure/don't know/first visit

We would now like to ask about other local sites that you visit for [*given activity*].

Q15 **Which one location would you have visited today if you could not visit here?** *Do not prompt, tick closest answer.*

○ Not sure/Don't know

○ Nowhere/wouldn't have visited anywhere

○ Site Named:

Record single site name:

Could you name two further sites which you also visit for your current activity?

Record second single site name:

Record third single site name:

Q16 **What factors draw you to these other places** *Tick all that apply, do not prompt.*

	Choice
Don't know / others in party chose	○
Close to home	○
En route to another place	○
Nearest greenspace	○
No need to use car	○
Good / easy parking	○
Limited time/ convenience	○
Quick & easy travel route	○
Choice of routes	○
Variety of places to visit	○
Feels safe / Personal security	○
No traffic noise	○

Not many people	○
Facilties/ Infrastructure (e.g. cafe and toilets)	○
Well maintained paths	○
Good for families	○
Large open area	○
Bigger/ longer walks	○
Can let dog off lead/ feels safe to let dog off	○
Good for dog / dog enjoys it	○
Rural feel / wild landscape	○
Scenery /views	○
Wildlife/ nature	○
Variety of habitats	○
Presence of water	○
Habit/familiarity	○
Suitability of area in given weather conditions	○
Other, please detail	○

Further details:

```

```

Q17 **How did you first find out about the site?** *Tick all that apply. Do not prompt. Use free text box for additional influences and / or detail.*

☐ Specific recommendation
☐ Saw on map
☐ Internet search
☐ Social media
☐ Thames Basin Heaths Partnership wardens/ website/ leaflets etc.
☐ Saw a sign/ drove past
☐ Local knowledge: word of mouth
☐ Local knowledge: written notice in local media
☐ Local knowledge: other
☐ Other, please detail

Further details:

```

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Q18 **What is your full home postcode?** *This is an important piece of information, please make every effort to record correctly.*

Q19 **What is the name of the town or village where you live?**

Q20 **Approximately how many years have you lived there?** *Enter a number of years (approximate single values, averaged if needed, rather than ranges)*

That is the end. Thank you very much indeed for your time.

Q21   TO BE COMPLETED AFTER INTERVIEW FINISHED.

Surveyor initials	
Survey location	
Gender of respondent	
Total number in interviewed group	
Total males	
Total females	
Total over 65	
Total 41 - 65	
Total 18 - 40	
Total minors (under 18)	
Total number of dogs	

Q22   **Surveyor comments**. *Note anything that may be relevant to the survey, including any changes to the survey entry that are necessary, eg typos/mistakes/changes to answers/additional information.*

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FOOTPRINT ECOLOGY

Analysis of 2017 Thames Basin Heaths SPA Parking Transects & Counter Data

Chris Panter

Contents

Acknowledgements

3

1.   Introduction

1.1   This report, commissioned by Natural England, details data collected as part of long-term monitoring of visitor pressure on the Thames Basin Heaths Special Protection Area (SPA). Data presented in this report are from two sources: automated people counters and coordinated counts of vehicles. All data were collected by the TBH Partnership staff in 2017.

The Thames Basin Heaths SPA

1.2   The Thames Basin Heaths (TBH) Special Protection Area (SPA) - shown in Map 1 - covers an area of approximately 8,400ha and was classified under the Birds Directive in 2005. The SPA comprises 13 Sites of Special Scientific Interest (SSSI) distributed across three counties and 11 local authorities. The SPA includes areas of dry and wet heathland, mire, oak and birch woodland, gorse scrub and acid grassland, plus conifer plantation. Lowland heathland has a very limited global distribution and is among the most threatened habitat in Britain and Europe. The TBH SPA is classified for three species of birds, listed on Annex I of the Birds Directive: Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*. All three species are ground nesting (or in the case of Dartford warbler, low nesting) species, and are particularly vulnerable to disturbance.

1.3   The proximity to London has led to high pressure for development, which has resulted in heathland loss and fragmentation. In the Thames Basin it has been estimated that the decline in heathland area was 53% between 1904 and 2003 with fragmentation of 52 main blocks to 192 smaller blocks during the same period (Land Use Consultants 2005).

1.4   A range of impacts to heathlands are particularly associated with the proximity to urban areas. These 'urban effects' (see Haskins, 2000; Underhill-Day, 2005 for review) include: increased fire incidence, trampling, pollution, and disturbance by humans and their dogs. Studies of the Annex I bird species show clear impacts of increased housing on both breeding success and numbers (Liley & Clarke, 2003; Liley, Clarke, Mallord, & Bullock, 2006; Mallord, Dolman, Brown, & Sutherland, 2007; Murison, 2002)

4

TBH SPA Area Delivery Framework and SAMM

1.5   With the growing evidence of impacts of urban development, it was recognised that mitigation measures were necessary to ensure that continued residential development did not adversely impact the TBH SPA. The local authorities, with Natural England, worked to produce a series of mitigation and avoidance measures. The background to these is discussed in detail in Burley's report on the TBH SPA draft delivery plan (2007) and details of the agreed approach set out in the Thames Basin Heaths Special Protection Area Delivery Framework (Thames Basin Heaths Joint Strategic Partnership Board, 2009).

1.6   The delivery framework established a series of zones around the SPA that inform where and how residential development can be taken forward, and also establish mitigation measures including alternative natural greenspace sites (SANGs), on-site visitor access management and monitoring (the latter two coming under the umbrella heading of 'SAMM' –strategic access management and monitoring).

1.7   SAMM is coordinated strategically by Natural England working with the local authorities and partners, under the Thames Basin Heaths Partnership. The access management can include a variety of measures ranging from education and wardening, limiting car parking, managing path networks etc. The other part of SAMM is the monitoring of the mitigation measures. Regular monitoring is necessary to evaluate the levels of recreational use on heaths and on SANGs. Monitoring should allow a check on the effectiveness of measures, act as an early warning and allow mitigation measures to be adjusted as necessary to reflect changes in access patterns, and types of use on both heathland and SANG mitigation sites.

Map 1: Thames Basin Heaths SPA, individual sites are labelled by SSSI names and access points shown.

Broadmoor to Bagshot Woods & Heaths

Chobham Common

Sandhurst to Owlsmoor Bogs & Heaths

Bramshill

Horsell Common

Hazeley Heath

Colony Bog & Bagshot Heath

Castle Bottom to Yateley and Hawley Commons

Eelmoor Marsh

Whitmoor Common

Bourley & Long Valley

Ash to Brookwood Heaths

WOKINGHAM

BRACKNELL FOREST

SURREY HEATH DISTRICT

WOKING DISTRICT

RUSHMOOR DISTRICT

GUILDFORD DISTRICT

WAVERLEY DISTRICT

Legend

TBH SPA

● Access points with parking

○ Foot only access points

0   5   10 km

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Monitoring approaches

1.8   Access occurs widely across the SPA site and given the size and number of sites, is therefore hard to monitor. Data are collected in a range of ways, for example, through car park counts, or direct counts. The different counting methods have advantages and disadvantages, and the use of these, in combination, provides robust data to understand patterns.

Vehicle counts

1.9   The provision of car parking spaces at, or adjacent to, the heaths is an important factor determining the number of visitors interacting with sites. In the Thames Basin Heaths, visitors arriving by car make up a considerable proportion of the total visitors.

1.10   Counts of the number of cars parked at heath access points can be conducted quickly to provide a good indication of the number of visitors at a site. Meaningful counts require a co-ordinated approach, using a set methodology and surveying period. The resulting data work to provide a good overview of the long-term access patterns on sites.

1.11   One minor disadvantage of the vehicle counts is that the data collection is time-consuming relative to the amount of data yielded. Counts are time consuming, require multiple members of staff simultaneously, can be hard to organise. However, the vehicle counts in tandem with automated counters work well.

Automated counters

1.12   The use of automated counters placed on access points to record people provides a greater level of detail and does not involve lengthy fieldwork. These sensors require an effort to be maintained but provide an extremely large dataset across 24hrs a day. The staff time needed to otherwise produce this kind of data from on-site fieldwork would be unrealistic.

1.13   These sensors can be used to examine daily, weekly and monthly patterns at specific locations. These can be used as a baseline to examine the current access, and in the future to determine how these relate to SAMM actions, such as on-site management of the SPA and the provision of SANGs.

Aims of this report

1.14   This report presents the car-park count data and automated count data collected during 2017. The report provides an overview of the data and results from the year and over time these results will fit with data from other years to provide a picture of visitor use and pick up any changes in access patterns.

2. Vehicle count methodology and analysis

Methodology

2.1   Surveying methods for coordinated vehicle counts follow those from previous counts, first undertaken as a trial in 2012 (Fearnley & Gartshore, 2013), then in summer 2013 (Fearnley, 2013) and 2014 (Cruickshanks & Fearnley, 2014). In 2016 surveying was undertaken by the TBHP staff and allowed counts to be spread across the year (Liley, 2017). In 2017, counts were also spread across the year and undertaken by TBHP staff.

2.2   The main principle of the set methodology involves driving around the SPA and counting the number of vehicles in parking locations within a short window (e.g. around 2 hours). This gives a snapshot of visitor use at that moment in time. At locations as large as the TBH SPA, the approach requires the use of multiple surveyors to cover all parking locations in a sufficiently small time period, using a coordinated count approach. In the TBH, six surveyors cover six simultaneous areas, as shown in Map 2.

2.3   Surveyors drove the predefined route of their allocated section and recorded the total number of parked vehicles, categorised the types of vehicles and made any additional notes. The recording form allowed separate counts for different vehicle types (commercial vehicles, camper vans, MPVs and minibuses).

2.4   In 2017, fifteen transects (each transect covering the six sections in a single window) were completed. Counts covered a range of times and seasons (Table 1), and covered the whole year, ranging from January to December. Surveys were conducted around the end of every month, one per month, on a weekday, with double the effort in the summer months, which were conducted on a weekend day (Saturdays). Five transects started at 14:00, three at 10:00 and three at 16:00 and two at 07:00 and 18:00 – these earlier and later counts undertaken in the longer spring and summer days.

2.5   Due to updated methods from previous years a direct comparison was not straightforward (see methods given in for every transect count in Table 7). Moving forward these will be conducted in a standardised manner, as used in these 2017 surveys.

Table 1: Summary of the fifteen surveying dates. Rows coloured by season; winter (blue), spring (yellow), summer (green), autumn (orange).

Transect number	Date	Day of week	Type of day	Start time
1	25/01/2017	Wednesday	term Weekday	14:00
2	27/02/2017	Monday	term Weekday	16:00
3	24/03/2017	Friday	term Weekday	14:00
4	26/04/2017	Wednesday	term Weekday	18:00
5	22/05/2017	Monday	term Weekday	10:00
6	24/06/2017	Saturday	term Weekend	10:00
7	30/06/2017	Friday	term Weekday	18:00
8	26/07/2017	Wednesday	school holidays Weekday	07:00
9	29/07/2017	Saturday	school holidays Weekend	16:00
10	19/08/2017	Saturday	school holidays Weekend	14:00
11	21/08/2017	Monday	school holidays Weekday	14:00
12	29/09/2017	Friday	term Weekday	07:00
13	25/10/2017	Wednesday	half-term Weekday	16:00
14	27/11/2017	Monday	term Weekday	10:00
15	15/12/2017	Friday	term Weekday	14:00

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Map 2: Distribution of parking locations, categorised by the driving transect section they are covered by.

Broadmoor to Bagshot Woods & Heaths

Chobham Common

Sandhurst to Owlsmoor Bogs & Heaths

Bramshill

Hazeley Heath

Horsell Common

Castle Bottom to Yateley and Hawley Commons

Colony Bog & Bagshot Heath

Eelmoor Marsh

Whitmoor Common

Bourley & Long Valley

Ash to Brookwood Heaths

Legend

TBH SPA

Section:
- 1
- 2
- 3
- 4
- 5
- 6

0   5   10 km

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Analysis

2.7   The dataset included some omissions and other issues, which required clarification with TBHP staff prior to analysis. These included instances when:

- the ID number of the parking location was missing – *assumed that the parking location was missed or omitted and therefore no data [N=4].*
- the parking location ID was given, but no time was given and the number of vehicles was blank - *assumed location was missed or omitted and therefore no data [N=121].*
- the parking location ID and a time of surveying was given, but the number of vehicles was blank – *assumed location was surveyed, with 0 vehicles present in the parking location [N=32].*

3.   Vehicle count results

Parking locations

3.1   In total, 160 discrete parking locations were mapped, with a total capacity of 2,116 spaces. Parking locations categorised by type are shown in Map 3 and totals given in Table 2. Approximately 27% of parking locations are formal car parks, however these locations account for 69% of the parking spaces compared to other informal parking locations.

Table 2: The number of parking locations (and total number of parking spaces) in each section of the driving transect, categorised by the type of parking location.

Type	1	2	3	4	5	6	Total
Car park	6 (118)	6 (203)	3 (385)	12 (408)	7 (154)	9 (224)	43 (1492)
Layby		12 (85)	3 (25)	5 (19)	6 (20)	6 (40)	32 (189)
Layby/verge	1 (10)						2 (12)
Roadside/Kerb	1 (12)		6 (19)				7 (31)
Track entrance	9 (18)	5 (13)	3 (10)	1 (2)	1 (3)	8 (29)	27 (75)
Verge	6 (35)	13 (88)	4 (15)	10 (84)	10 (58)	6 (76)	49 (356)
Total	**23 (193)**	**36 (389)**	**19 (454)**	**29 (515)**	**24 (235)**	**29 (369)**	**160 (2155)**

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Map 3: Distribution of parking locations, categorised parking type and points sized by the parking spaces.

Legend

TBH SPA

Parking type:
- Car park
- Layby
- Layby/verge
- Roadside/Kerb
- Track entrance
- Verge

0   5   10 km
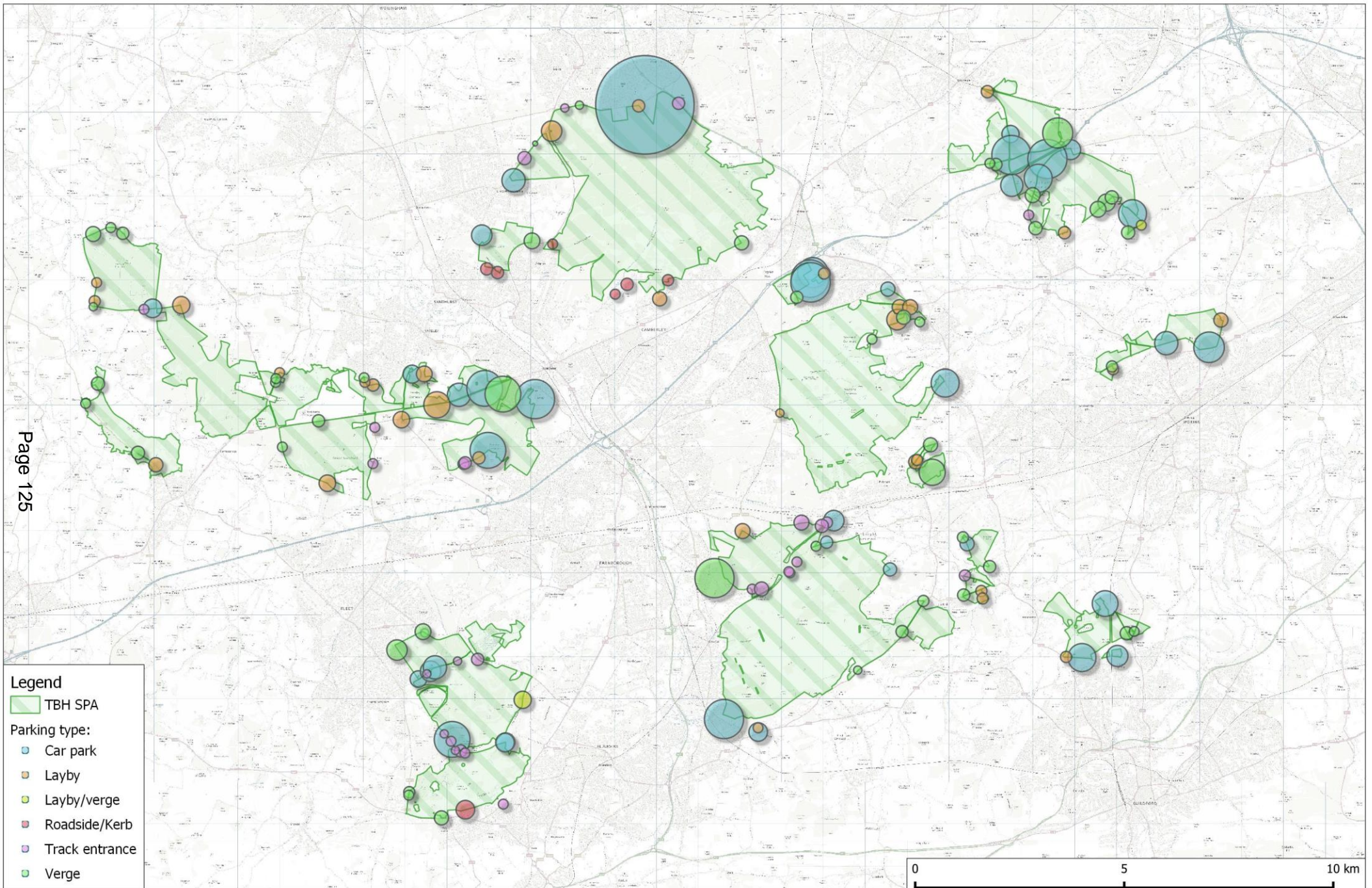
2017 Surveys

Duration

3.2   The longest recorded duration for an individual count section was 3 hrs 34 mins (Section 5, 21/08/2017). However typically sections took much less time to complete. The average time taken across all dates was 1 hr 55 mins.

Car-park coverage

3.3   Driving transect counts can miss some individual car parks as in some circumstances it is not possible to capture all data. These omissions can occur when individual car parks are closed, missed or inaccessible (e.g. road closures, traffic accidents, snow).

3.4   Of the 160 parking locations included in the counts, 137 locations (86%) were counted on all 15 transect dates. Remaining locations ranged from two to 14 counts completed, with the lowest count for a single location, (Section 1, ID 6) around Bourley & Long Valley (described as access to MoD military compounds only). Just 11 locations had less than 14 counts, and therefore 93% of locations had values for at least 14 of the 15 counts.

3.5   Overall completeness was 96%, with 2,305 individual counts recorded in total (out of a possible 2,400). The completeness at each parking location is shown in Map 4 and is summarised by sites later in Table 4.

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Map 4: Distribution of parking locations, categorised percentage of transect counts omitted.

Broadmoor to Bagshot Woods & Heaths

Chobham Common

Sandhurst to Owlsmoor Bogs & Heaths

Bramshill

Horsell Common

Hazeley Heath

Colony Bog & Bagshot Heath

Castle Bottom to Yateley and Hawley Commons

Whitmoor Common

Eelmoor Marsh

Bourley & Long Valley

Ash to Brookwood Heaths

Legend

TBH SPA

% of data omitted:
- 0 – 20
- 20 – 40
- 40 – 60
- 60 – 80
- 80 – 100

0   5   10 km
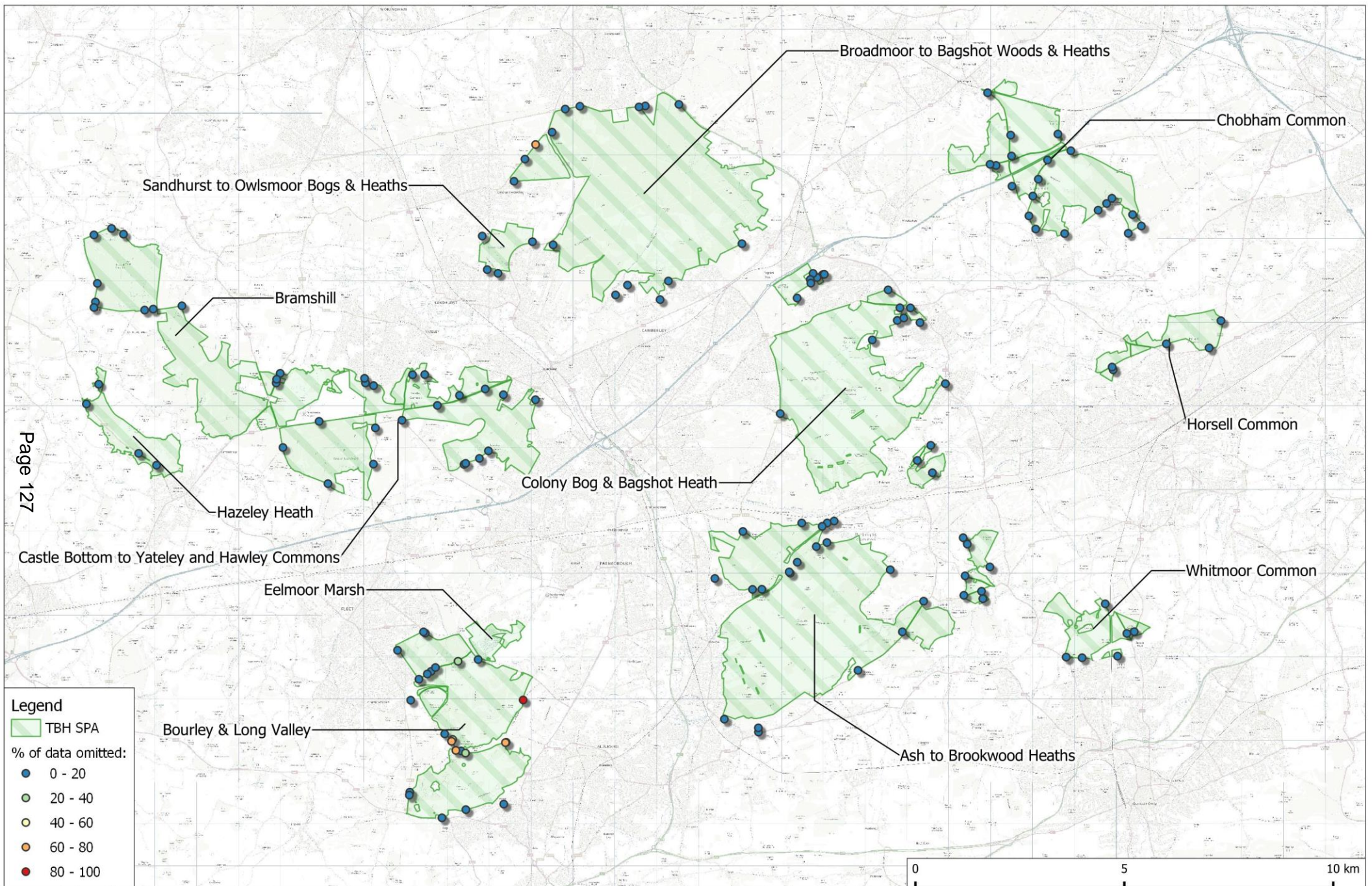
Weather

3.6 Weather conditions during surveys were variable, with just over half of the transect dates in completely dry conditions (53%). Across all 2,305 individual parking location counts only 15% of locations were surveyed in the rain. There was only one transect date during which it was raining at 100% of parking locations – 29/07/2017, see Table 3.

Table 3: Summary of transect durations and weather conditions.

Transect number	Date	Day of week	Start time	Longest duration of an area in a transect	Rain present (as % of parking locations)
1	25/01/2017	Wednesday	14:00	01:44	0
2	27/02/2017	Monday	16:00	01:39	21
3	24/03/2017	Friday	14:00	02:06	0
4	26/04/2017	Wednesday	18:00	01:34	0
5	22/05/2017	Monday	10:00	01:41	1
6	24/06/2017	Saturday	10:00	01:26	1
7	30/06/2017	Friday	18:00	01:48	0
8	26/07/2017	Wednesday	07:00	01:52	7
9	29/07/2017	Saturday	16:00	01:55	100
10	19/08/2017	Saturday	14:00	01:29	0
11	21/08/2017	Monday	14:00	03:34	44
12	29/09/2017	Friday	07:00	02:20	57
13	25/10/2017	Wednesday	16:00	02:13	0
14	27/11/2017	Monday	10:00	01:46	0
15	15/12/2017	Friday	14:00	01:45	0

2017 Vehicle totals

3.7   In total, 6,995 vehicles were recorded from the 15 counts. This included 338 commercial vehicles, 192 vehicles with bike racks, 100 MPVs/minibuses, 47 commercial dog walker vehicles, and 22 campervans. In total, this equates to roughly 466 vehicles recorded across all locations on a typical single transect. These are the raw totals recorded, and have not accounted for variability in the number of parking locations counted due to (e.g. car parks closed, inaccessible or not counted).

3.8   Figure 1 shows these vehicle totals by date, and shows the variability within the data collected. The highest single count was on the August weekend (19/18/2017), in which 840 vehicles were recorded. The second highest count was 728 vehicles, on a June weekend (24/06/2017). The lowest count was 227 vehicles, counted on an October weekday (29/09/2017), during which it was raining on roughly half of the counts. This was followed by 232 vehicles on a July weekday (26/07/2017).
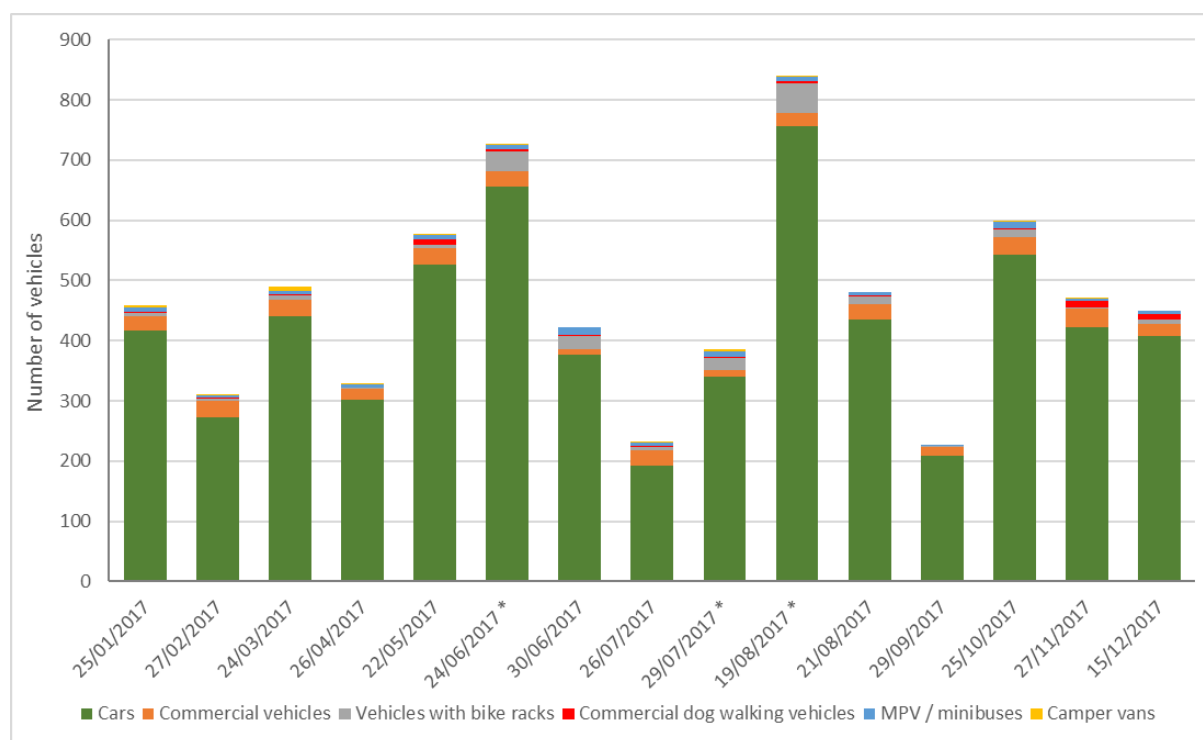
Figure 1: Total numbers of parked vehicles by date. Style is repeated from the 2016 report. Dates with an asterisk indicate weekend dates.

3.9   Totals recorded for all vehicles and different types of vehicles are provided
for each named SSSI in Table 4. Raw counts in Table 4 highlight the highest
numbers of total vehicles and of most vehicle types were around Broadmoor
to Bagshot Woods & Heaths and lowest around Hazeley Heath.

**Table 4: Summary by sites of the completeness of surveys and raw total number of vehicles for each
SSSI site. First two columns give the number of parking locations and average % of location
surveyed. All other columns give the number of vehicles with a % for each based on the column
total. Total vehicles column is the total for all vehicle types and columns to the right are a subset.
Top two sites highlighted in red and bottom two in blue.**

SSSI	Number of parking locations at site	Average of % completed	Total parked vehicles	Commercial vehicles	Vehicles with bike racks	Vehicles branded with dog walking	Camper vans	MPV / minibus vehicles
Ash to Brookwood Heaths	27	99.0	722 (10)	49 (14)	13 (7)	**11 (23)**	**0 (0)**	4 (4)
Bourley & Long Valley	24	80.6	539 (8)	21 (6)	5 (3)	3 (6)	3 (14)	**0 (0)**
Bramshill	9	100.0	132 (2)	**2 (1)**	2 (1)	2 (4)	**0 (0)**	**0 (0)**
Broadmoor to Bagshot Woods & Heaths	15	94.7	**1834 (26)**	**63 (19)**	**138 (72)**	5 (11)	4 (18)	**43 (43)**
Castle Bottom to Yateley & Hawley Common	23	99.1	580 (8)	14 (4)	8 (4)	4 (9)	**1 (5)**	**31 (31)**
Chobham Common	20	99.7	480 (7)	30 (9)	2 (1)	**6 (13)**	**0 (0)**	3 (3)
Colony Bog & Bagshot Heath	19	99.3	**1109 (16)**	45 (13)	2 (1)	8 (17)	**1 (5)**	4 (4)
Hazeley Heath	4	98.3	**24 (0)**	**2 (1)**	**0 (0)**	1 (2)	**0 (0)**	**0 (0)**
Horsell Common	5	97.3	421 (6)	**7 (2)**	**1 (1)**	4 (9)	**1 (5)**	**1 (1)**
Ockham & Wisley Commons	4	100.0	491 (7)	**66 (20)**	2 (1)	**1 (2)**	**6 (27)**	4 (4)
Sandhurst to Owlsmoor Bogs & Heaths	4	100.0	**119 (2)**	14 (4)	**0 (0)**	**0 (0)**	**6 (27)**	4 (4)
Whitmoor Common	6	100.0	544 (8)	25 (7)	**19 (10)**	2 (4)	**0 (0)**	6 (6)
Total	**160**	**96.0**	**6995 (100)**	**338 (100)**	**192 (100)**	**47 (100)**	**22 (100)**	**100 (100)**

3.10   Total numbers of vehicles for each parking location are also presented as adjusted values accounting for surveying effort (by dividing by the number of counts), to produce average numbers of vehicles per transects. These data values are shown for each SSSI in Table 5. The overall pattern is very similar to that shown from raw values in Table 4.

Table 5: Average numbers of vehicles per transect for each SSSI site. Total vehicles column is for all vehicle types and columns to the right are a subset. Cells are coloured based on values within the column, high values in red to low values in blue.

SSSI	Total parked vehicles	Commercial vehicles	Vehicles with bike racks	Vehicles branded with dog walking	Camper vans	MPV / minibus vehicles
Ash to Brookwood Heaths	48.4	3.3	0.9	0.7	0.3	0.0
Bourley & Long Valley	37.2	1.4	0.3	0.2	0.0	0.2
Bramshill	8.8	0.1	0.1	0.1	0.0	0.0
Broadmoor to Bagshot Woods & Heaths	122.3	4.2	9.2	0.3	2.9	0.3
Castle Bottom to Yateley & Hawley Common	38.8	0.9	0.5	0.3	2.1	0.1
Chobham Common	32.3	2.0	0.1	0.4	0.2	0.0
Colony Bog & Bagshot Heath	74.0	3.0	0.1	0.5	0.3	0.1
Hazeley Heath	1.6	0.1	0.0	0.1	0.0	0.0
Horsell Common	28.4	0.5	0.1	0.3	0.1	0.1
Ockham & Wisley Commons	32.7	4.4	0.1	0.1	0.3	0.4
Sandhurst to Owlsmoor Bogs & Heaths	7.9	0.9	0.0	0.0	0.3	0.4
Whitmoor Common	36.3	1.7	1.3	0.1	0.4	0.0
Total	**468.6**	**22.6**	**12.8**	**3.1**	**6.7**	**1.5**

3.11   Values of average number of vehicles per transect for each vehicle type are shown for each individual parking location in Maps 5 to 10. The maps use consistent graduated method of point sizing to indicate the relative number of vehicles recorded at each site. However, it should be noted that the exact values used in scaling points changes between different maps.

Map 5: Distribution of parking locations, categorised by average number of vehicles per transect.

Legend

TBH SPA

avg. vehicles per transect:

101.6
100
80
60
40
20

0   5   10 km
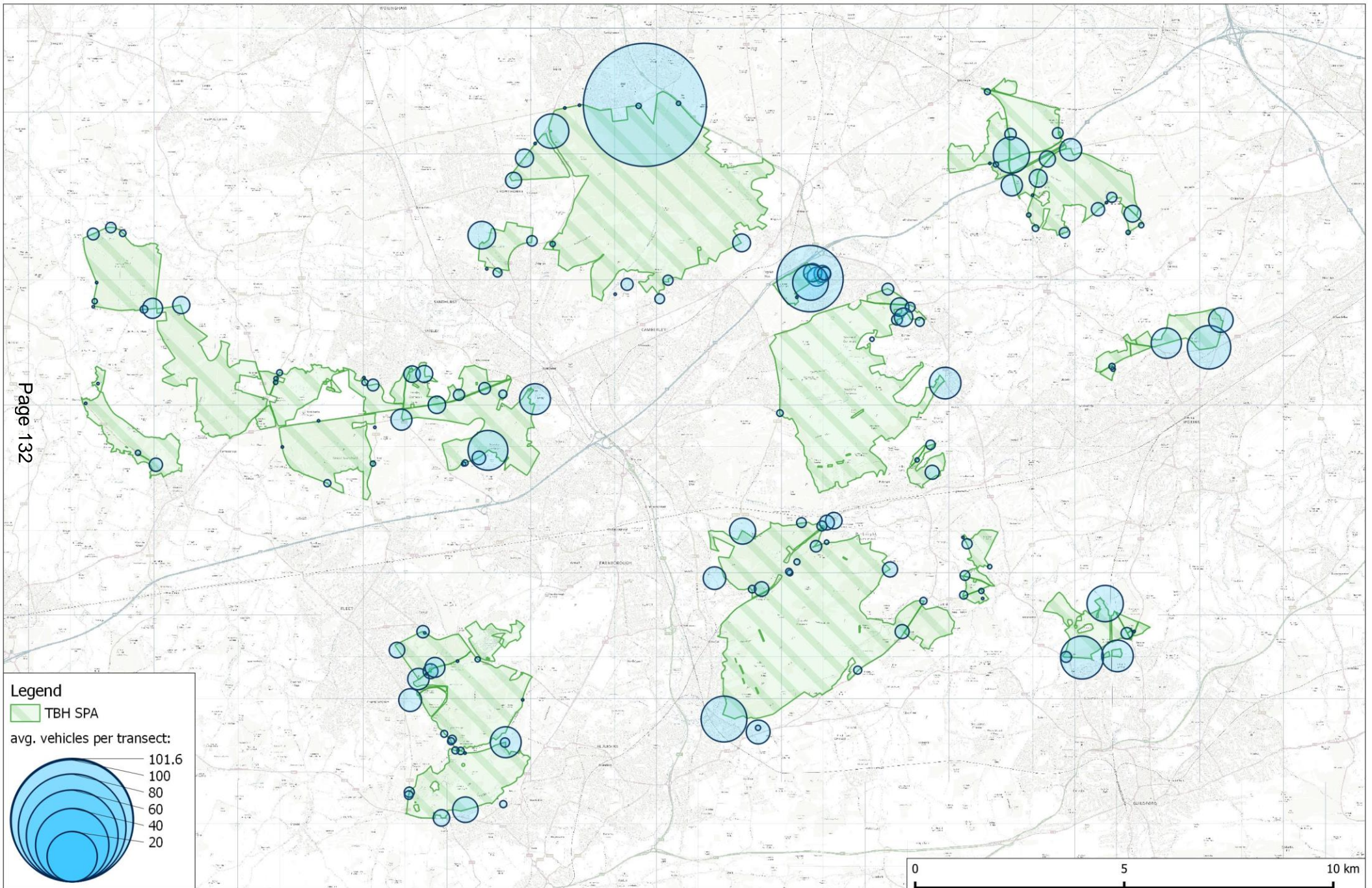
Map 6: Distribution of parking locations, categorised by average number of commerical vehicles per transect.

Legend

TBH SPA

avg. vehicles per transect:

3.93333
3
2
1

0   5   10 km

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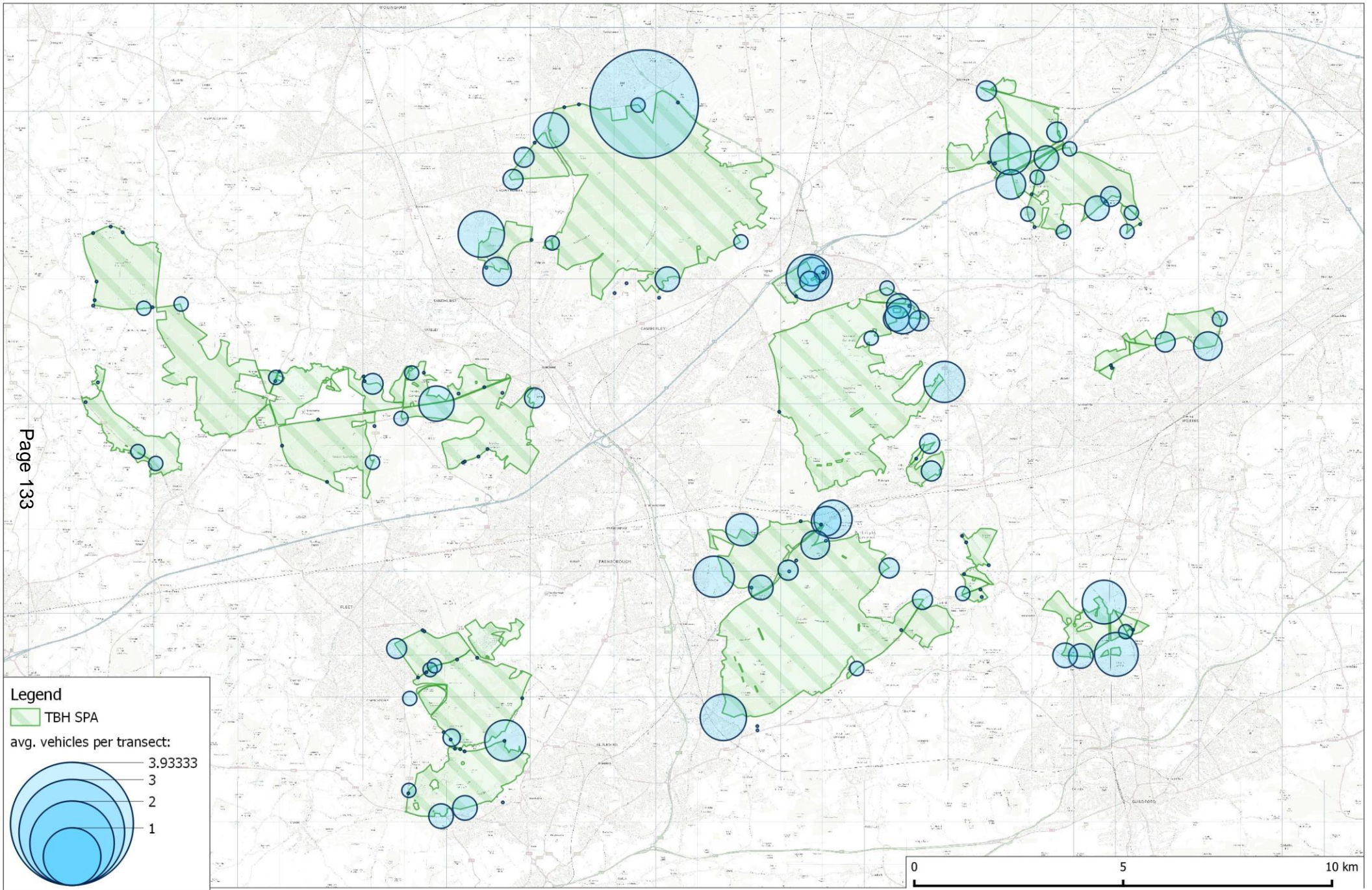
Map 7: Distribution of parking locations, categorised by average number of vehicles with bike racks per transect.

Legend

TBH SPA

avg. vehicles per transect:

8.73333
8
6
4
2

0   5   10 km
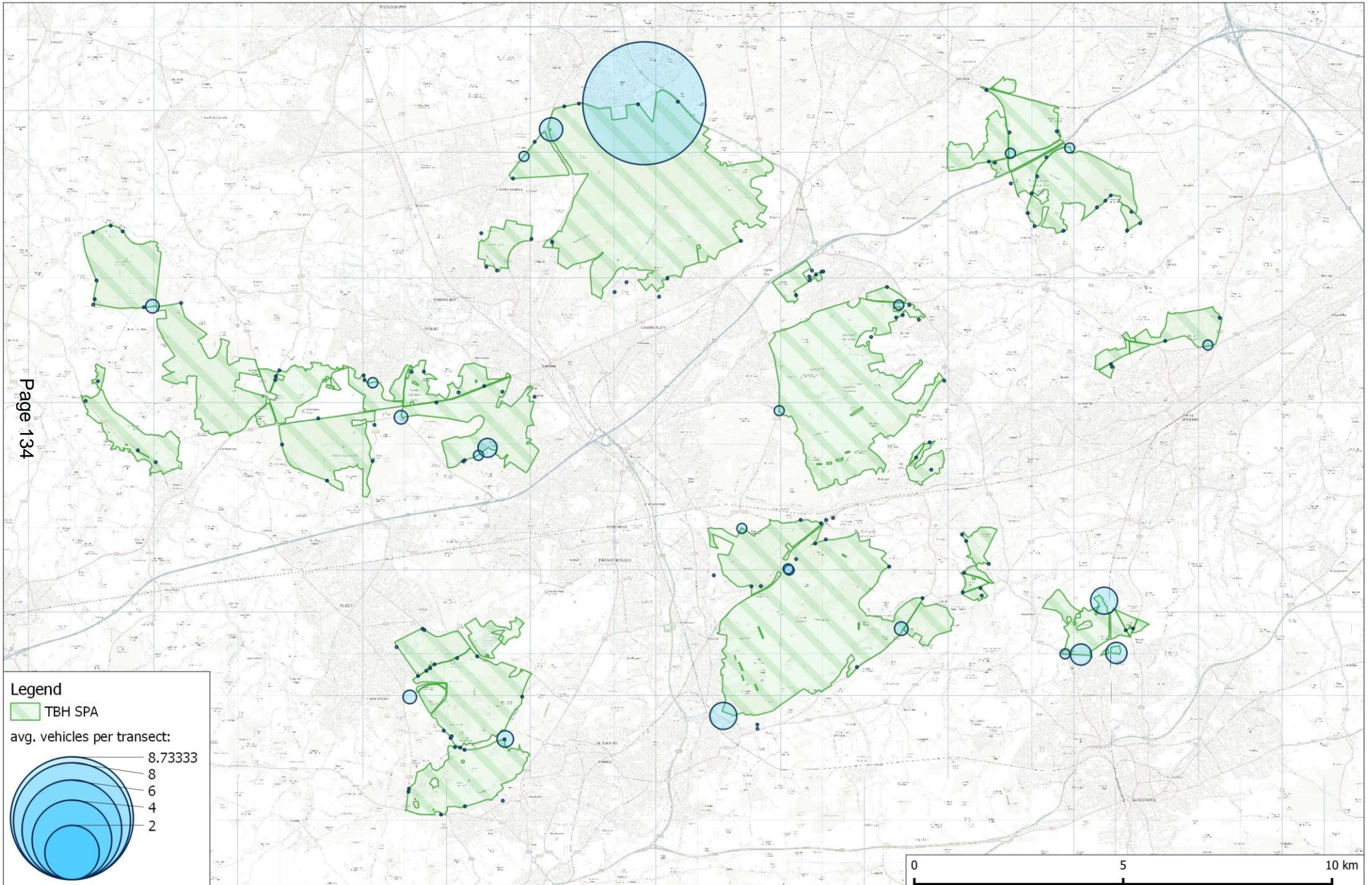
Map 8: Distribution of parking locations, categorised by average number of branded commerical dog walker vehicles per transect.

Legend

TBH SPA

avg. vehicles per transect:

0.333333
0.3
0.2
0.1

0   5   10 km

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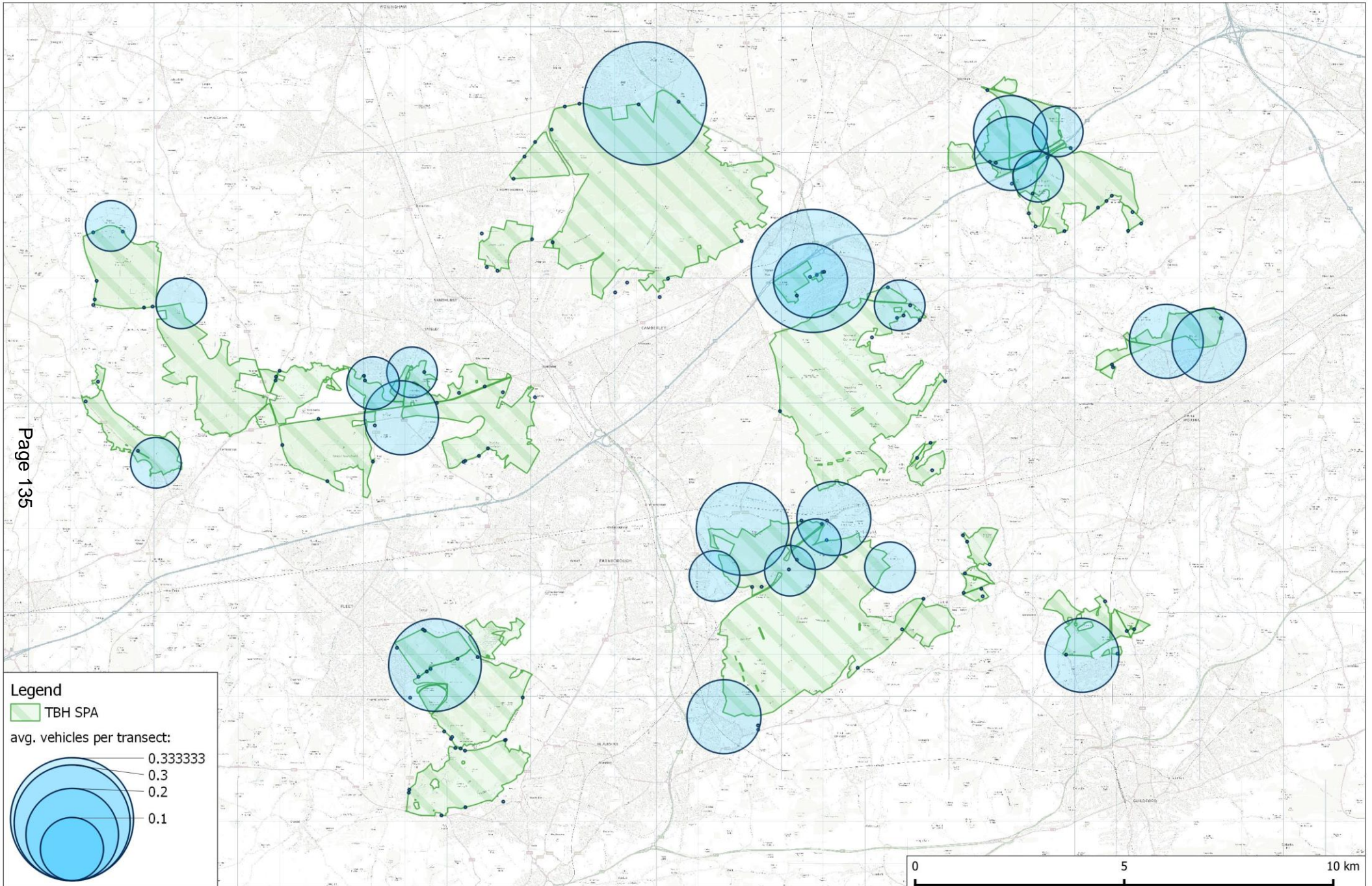
Map 9: Distribution of parking locations, categorised by average number of MPV/minivans per transect.

Legend

TBH SPA

avg. vehicles per transect:

2.26667
2
1.5
1
0.5

0   5   10 km

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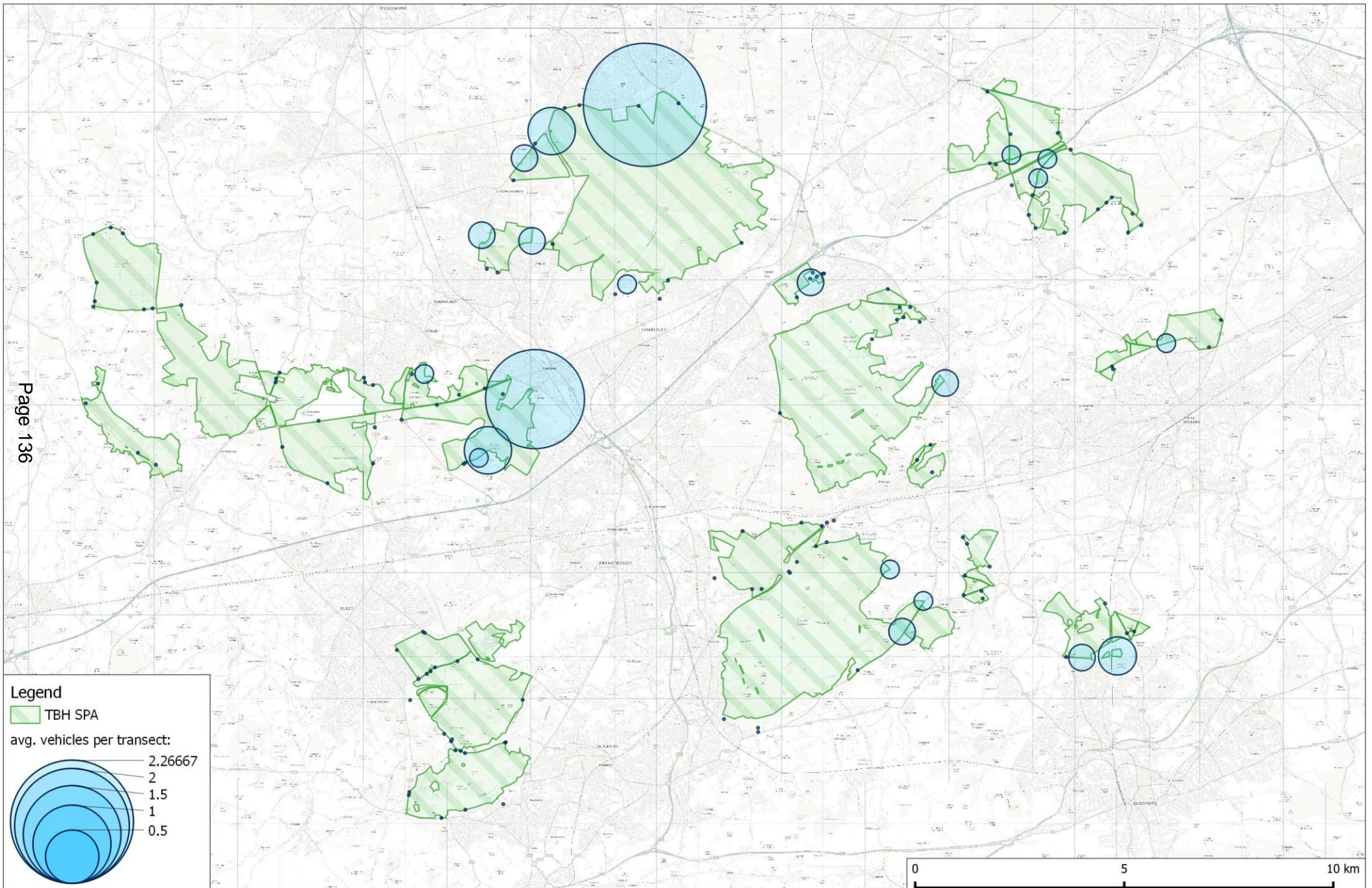
Map 10: Distribution of parking locations, categorised by average number of campervans per transect.

Legend

TBH SPA

avg. vehicles per transect:

3.93333
3
2
1

0   5   10 km

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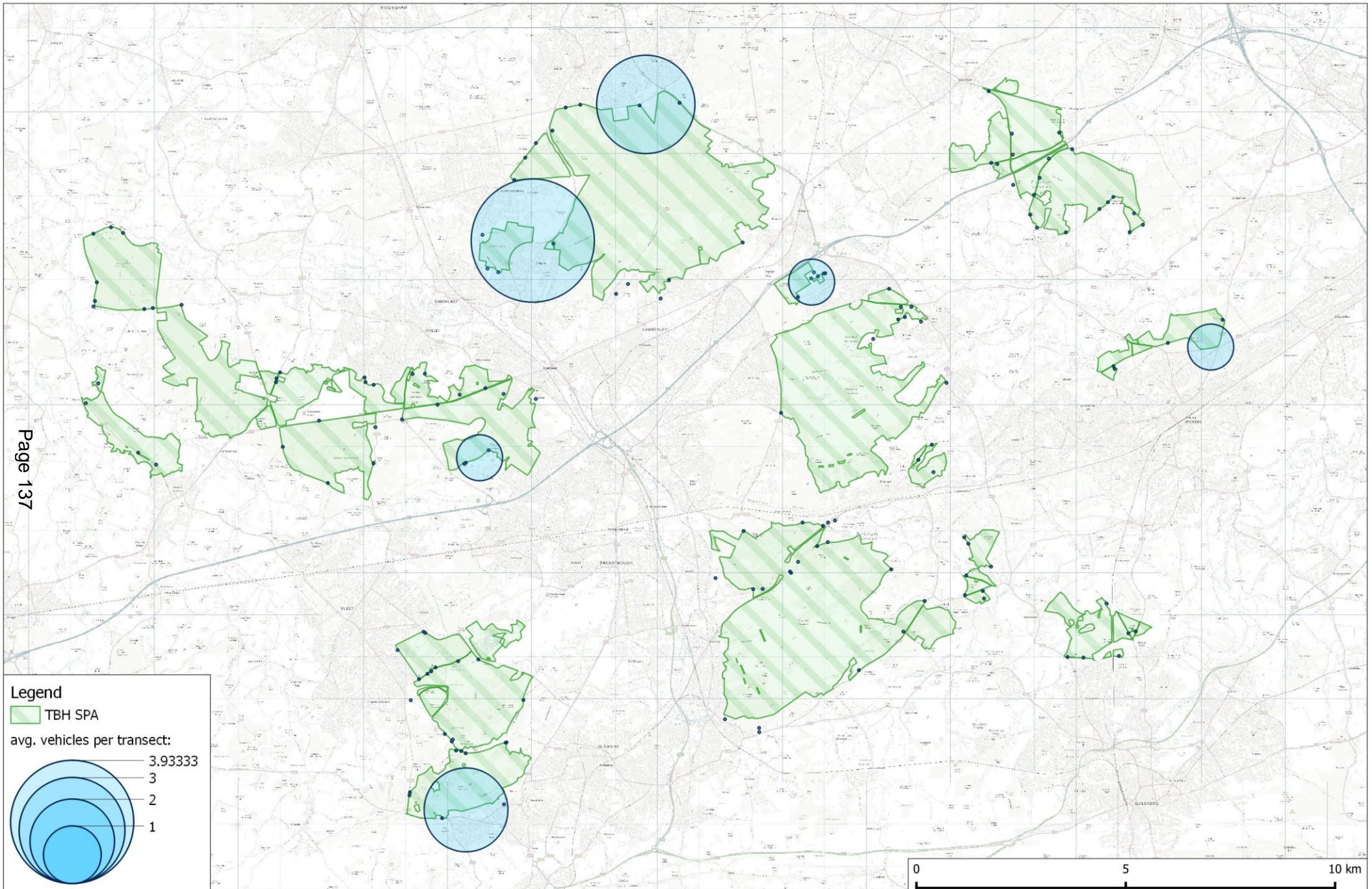
Temporal variation

3.12   Counts were dispersed equally across the year, with one weekday count per
        month – with additional weekend day counts only in the summer months.
        Considering only these weekday counts of the total number of vehicles,
        adjusted for surveying effort (by dividing by the number of counts), the
        average vehicles per parking location was calculated.

3.13   The overall average across all weekday counts for the year was 2.72 vehicles
        per location – shown as a reference line on Figure 2. Comparison between
        seasons is shown in Figure 2, and suggests overall that summer was the
        lowest season for use on weekdays across the year – roughly 10% lower than
        the average across the whole year's data. Highest use was in spring with 2.97
        vehicles per location on average.

3.14   However, as shown in Figure 3, summer was one of the most variable
        months of data, and included one of the very lowest counts, while winter
        appeared to be the most consistent season of data.

3.15   Figure 2 and Figure 3 present only weekday values, and it is important to
        note that summer weekends were very busy and are not included. Weekend
        surveys in the summer had an average of 4.3 vehicles per parking space –
        higher than any other weekday count and overall 58% greater than the
        average weekday value for the whole year.
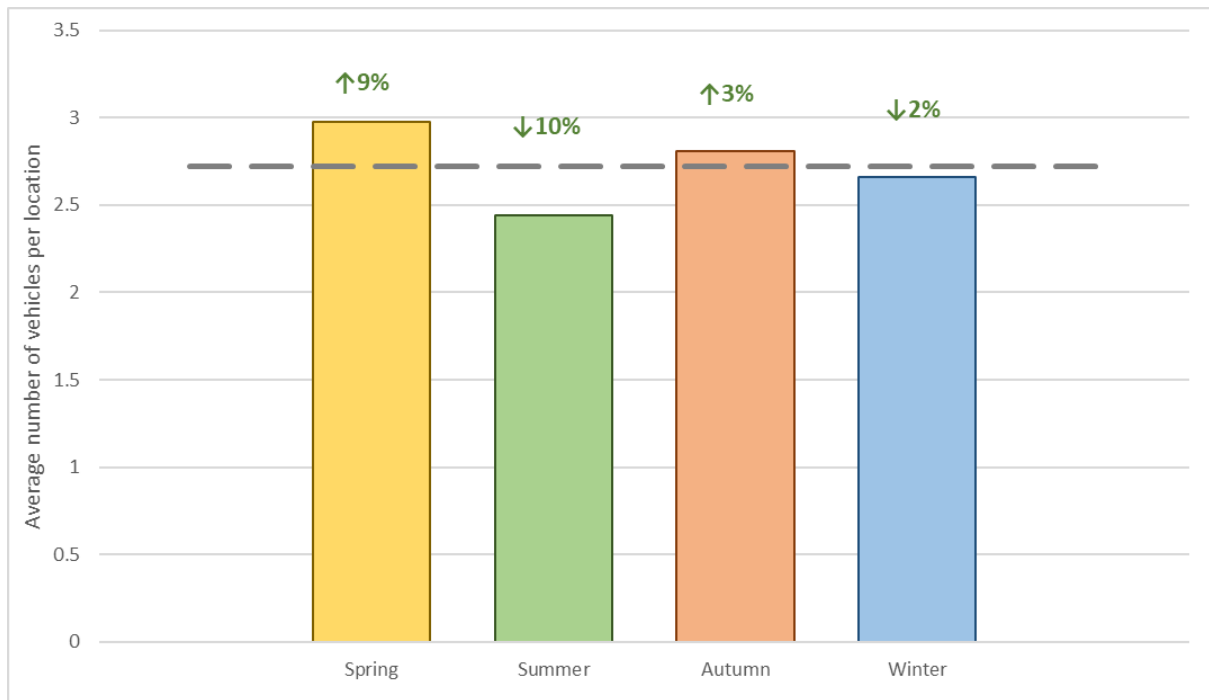
Figure 2: Average number of vehicles per location recorded in each season. Dashed line indicates average across all seasons. Data considered weekday counts only, with 3 separate transect counts per month.
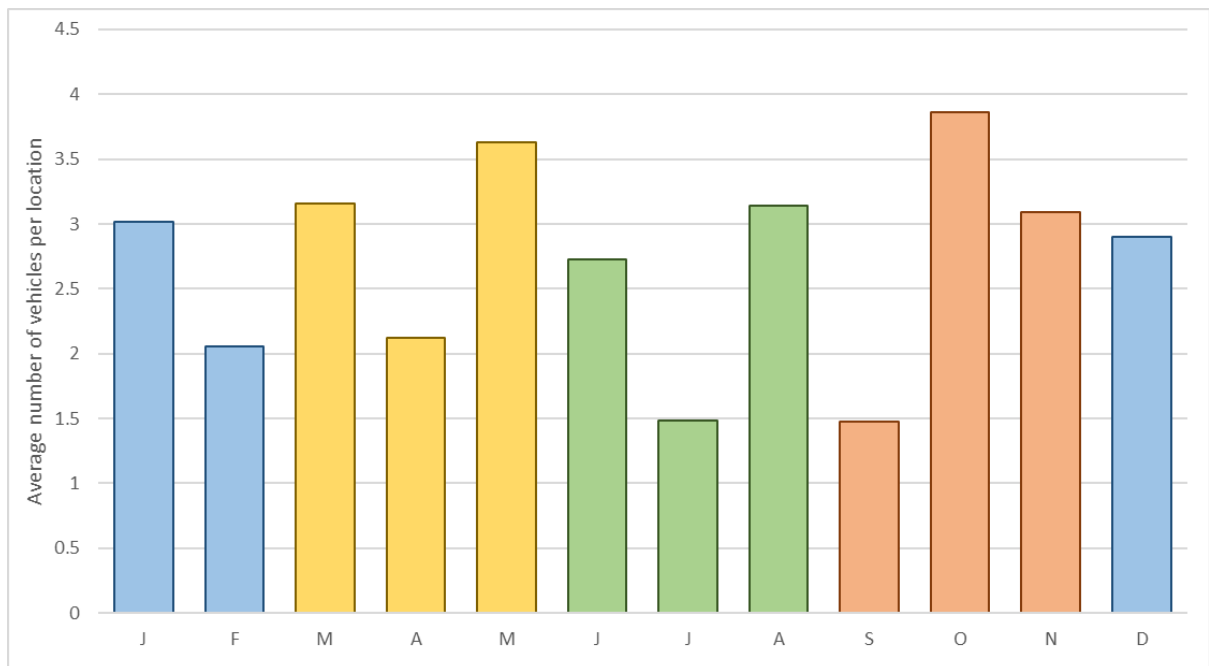
Figure 3: Average number of vehicles per location recorded in each month. Data considered weekday counts only.

3.16   One factor which may be influencing this pattern, is the different survey
        times, which differed in each season – as shown in Table 6.

Table 6: Summary of number of transects with different start times in the different seasons. Only weekdays included.

Season	07:00	10:00	14:00	16:00	18:00
Spring		1	1		1
Summer	1		1		1
Autumn	1	1		1	
Winter			2	1	
Overall	**2**	**2**	**4**	**2**	**2**

3.17   The average number of vehicles at each location could vary considerably
        based on the different survey times. The two lowest counts shown in Figure
        3 (in July and September) were those which were started at 07:00. Note that
        while count is low this is considered worthy of undertaking. Counts will be
        representative of use between 7:00 until around 9:00 (assuming 2 hours to
        complete), capture early morning dog walkers and may show different
        patterns of access.

3.18   Compared to the average across all times of day and seasons on weekdays
        only (2.72 vehicles per count), surveys starting at 07:00 were 46% lower than
        this average. Figure 4 shows there is something of an expected bell shape
        curve in the survey times, such that counts during the middle part of the day
        were higher. Overall, surveys at 10:00 were 24% higher than the average, at
        14:00 12% higher, at 16:00 9% higher and at 18:00 11% lower.
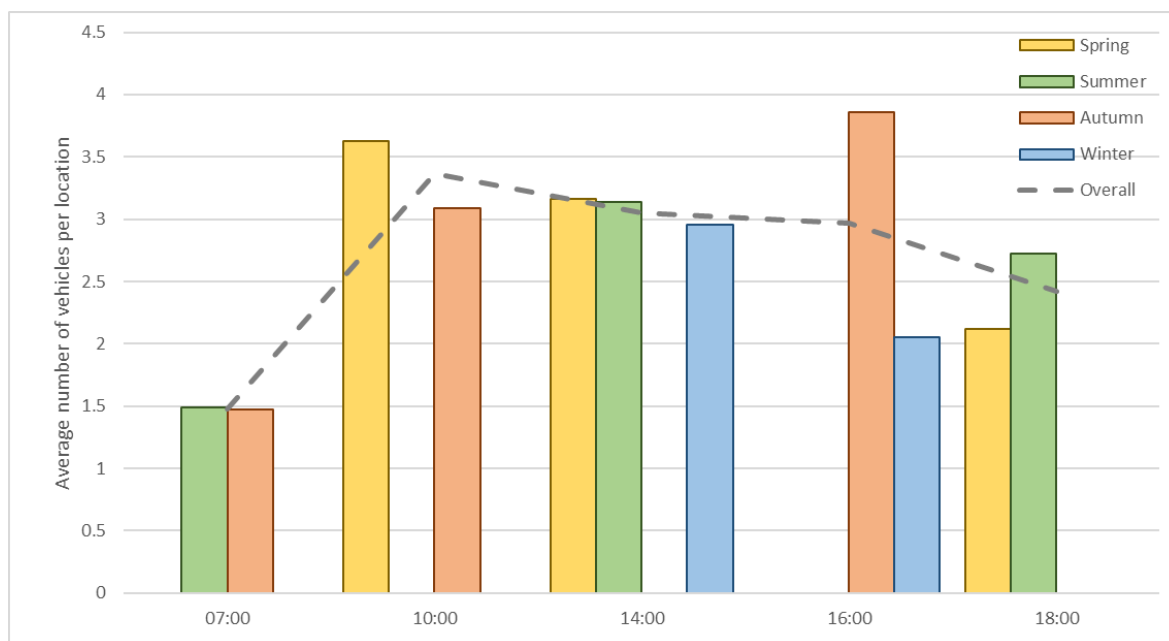
Figure 4: Average numbers of vehicles per parking location at different times of day (using survey start times) and season. Data considered weekday counts only.

Weekday-weekend variation

3.19   Surveys were conducted on weekdays, except for during the three summer months, when two surveys per month were conducted; one on a weekday and one on a weekend day. A comparison with monthly weekday-weekend pairs could not be examined as times of day differed greatly – for example July surveys started at 10:00 on a weekend and 18:00 on a weekday. It is suggested that these could be better compared by using the automated counter data which can be paired easily.

3.20   The total number of vehicles for each site, was divided by the number of counts, to produce average numbers of vehicles per transects for each site separately for weekday and weekend day, as shown in Figure 5. Figure 5 is also annotated with the percentage change from weekday to weekend at each site.

3.21   Overall, the percentage change was a 76% increase in the number of vehicles across the whole transect from a weekday to a weekend day in the summer. At individual sites, only Hazeley Heath recorded a reduction in numbers of vehicles at weekends, but this was the site with the lowest numbers overall. All other sites showed an increase at weekend days, most notably Broadmoor to Bagshot Woods & Heaths.
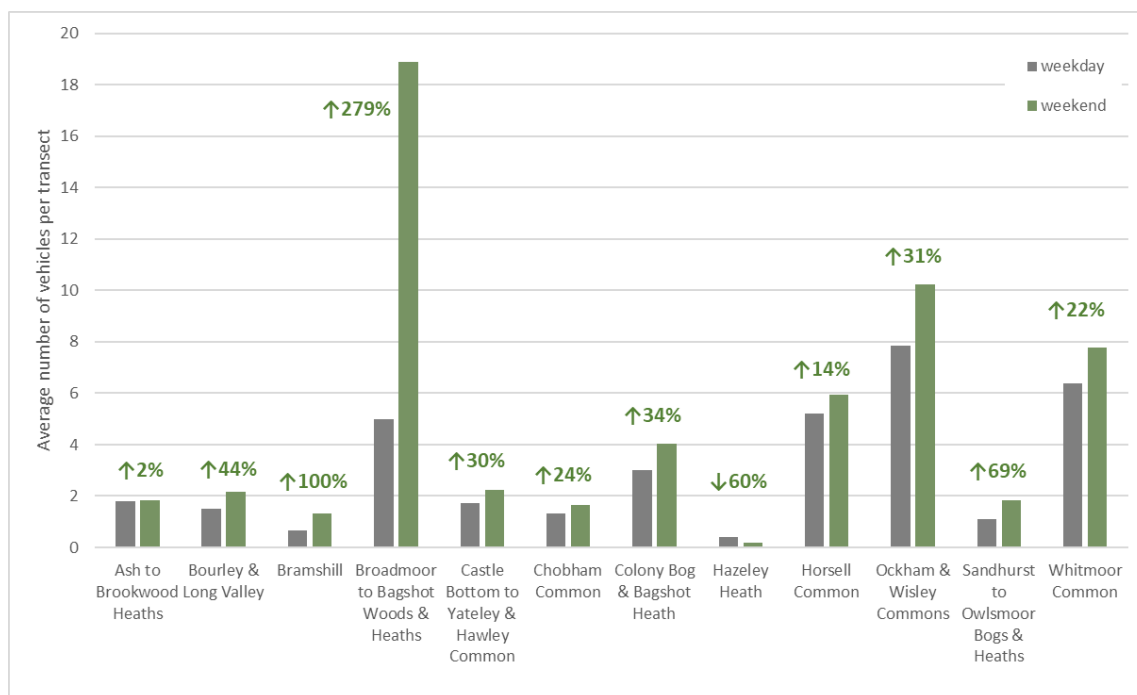
Figure 5: Comparison of average number of vehicles per transect as a total for each site on weekdays and weekend days. Percentage values indicate the percentage change from weekday numbers to weekend day numbers. It is important to note this is only based on summer data.

3.22   Overall, most vehicle types also showed an increase. Only the number of commercial vehicles remained consistent, showing just a 1% decrease (total number across both weekday and weekend of 118). Vehicles with bike racks increased by 173% (total seen 143), branded commercial dog walkers by 19% (13), MPV / minibus by 16% (49), and campervans by 411% (6) – however the overall small numbers observed for certain groups should be considered in relation to these percentages.

Comparison to previous years

3.23   A full summary of totals recorded in each of the previous count years is given in Table 7. However, due to the different timings and different surveying effort, comparison between 2017 and previous years is difficult. Methods used were very similar in 2013 and 2014 (there was a single trial in 2012), but since then methods have been revised.

3.24   Raw count totals are provided for each vehicle type, along with a percentage composition calculation. This shows the proportion of uncategorised vehicles and remains fairly consistent at around 90% of all vehicles. There is the hint of an increase in the proportion of commercial vehicles in counts, rising from 2% in the first year, to 5% in 2017. Similarly, for commercial dog walkers,

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from a negligible 0% in 2013 and 2014 to always registering at 1% in the last
two counts.

3.25   To account for varying survey effort, the number of vehicles per transect was
calculated (see italics row in Table 7). This suggests a decrease in the number
of vehicles recorded, down from around 528 vehicles per transect in
2013/2014 to 470 and 420 in 2016 and 2017 respectively. Other notable
trends include a possible decrease in the number of vehicles with bike racks
but increase in the number of commercial dog walker vehicles.

3.26   However, these trends are still only indicative and there has been no
accounting for the very different methods (see notes column in Table 7).
Transects in 2013 and 2014 were limited to the summer only, compared to
year-round surveys in 2016 and 2017. Furthermore 2017 has now included
some more weekends, but also a wide range of surveying times, including
some notably quieter times of day. This approach will now be the standard
moving forward.

**Table 7: Summary of the last four driving transect surveys. Raw total vehicles, including for the
different types of vehicles, is shown. Values in brackets indicate the percentage composition of
vehicles for each row. The surveying effort was consistent for 2013 and 2014, but otherwise has
varied between years. As such the number of transects are given and an additional row of values in
italics indicate the average number on a single transect.**

Year	Number of transects	Number of location counted	Total parked vehicles	Total commerical vehicles	Total vehicles with bike racks	Total commerical dog walker vehicles	Total MPV/minibus	Total Campervans	Notes
2013	6	960	3164 (93)	84 (2)	98 (3)	8 (0)	49 (1)	4 (0)	Summer only
			527.3	*14.0*	*16.3*	*1.3*	*8.2*	*0.7*	
2014	6	960	3178 (89)	129 (4)	112 (3)	10 (0)	146 (4)	13 (0)	Summer only
			529.7	*21.5*	*18.7*	*1.7*	*24.3*	*2.2*	
2016	11	1688*	5211 (92)	209 (4)	108 (2)	36 (1)	58 (1)	17 (0)	All year
			473.7	*19.0*	*9.8*	*3.3*	*5.3*	*1.5*	
2017	15	2306*	6296 (90)	338 (5)	192 (3)	47 (1)	100 (1)	22 (0)	All year, but more effort in summer & greater range of times
			419.7	*22.5*	*12.8*	*3.1*	*6.7*	*1.5*	

* some car parks missed/omitted

Paired 2016 and 2017 counts

3.27   To account for some of the variation in surveying effort and allow more
detailed comparison we selected comparable pairs of data in 2016 and 2017.
Comparable pairs were transects conducted in the same month (almost
always at the end of the month), and on the same type of day (weekend or
weekday). While these exact dates and in particular times varied this was
considered the best approach to allow some comparison.

3.28   We selected 11 pairs, one weekday pair per month, excluding February and
September (not surveyed in 2016), and just one weekend pair comparable in
July. These pairs are shown in Figure 6.

3.29   Figure 6 shows the variability between these pairs and the overall limited
seasonal patterns. It would appear pairs are often similar in the autumn and
winter months, and use appears to be more variable within and between
years in the warmer months. The dotted lines indicate the mean across all
the data values presented in the figure. These mean values were an overall
3.10 vehicles per location in 2016 compared to 2.88 in 2017. However, it is
unlikely there is a significant difference, as median values show the opposite,
with a greater average in 2017 than 2016 (3.02 compared to 2.92).
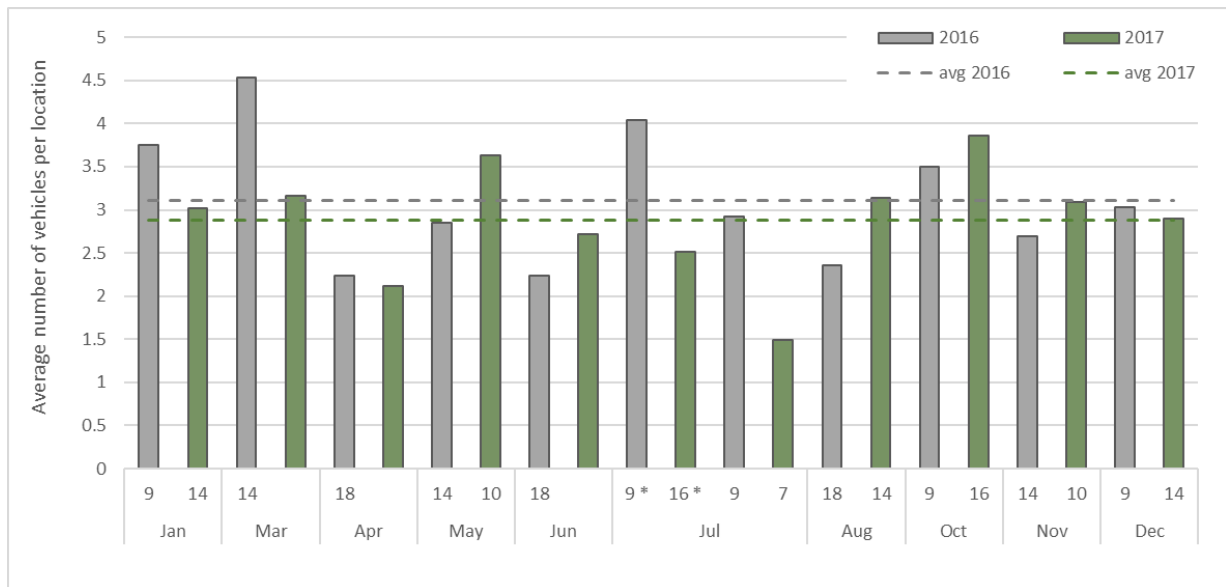
**Figure 6: Monthly pairs of 2016 and 2017 data. Data pairs which were in the same month and same
type of day were used. Start times differed for most pairs, but start times are indicated. All pairs
were on a weekday, except for one pair in Jul (marked with an *). Dotted lines show the average
(mean) based on each pair value presented.**

Individual parking locations

3.30   Individual parking locations were then examined between 2016 and 2017. There was a highly significant correlation between the overall totals at each parking location recorded in 2016 and 2017 (Pearson correlation coefficient=0.964, p<0.001), with a very strong fit (r^2 = 92%) indicating that relative values are similar (i.e. car parks that were busy in the previous year were busy this year).

3.31   Count data for 2016 and 2017 are shown in Figure 7, where we have fitted a linear trendline through the data points. This fitted line identifies individual parking locations that have a particularly high or low count in 2017 when compared with the 2016 data. The residual value – the extent to which the points are above or below the line – provides a means of highlighting locations where there appears to be a marked change.

3.32   The largest negative residual visible in Figure 7 and therefore largest degree of change was recorded at Section 6, ID 29, Colony Bog & Bagshot Heath, one of the Lightwater Country Park car parks. In 2016 the average count was 26.9 compared to 10.6 in 2017. The largest positive residual at Section 1, ID 7, The Lookout/Bracknell Go Ape on Broadmoor to Bagshot Woods & Heaths, showing an increase from 77.2 in 2016 to 101.6 in 2017.

3.33   Residual values for each parking location are represented in Map 11. Parking locations shown in red, are those with a negative residual value (i.e. point below in the trend line in Figure 7) and therefore where the count in 2017 was lower than would be expected. Points in blue are those locations where the number of vehicles was higher than expected.
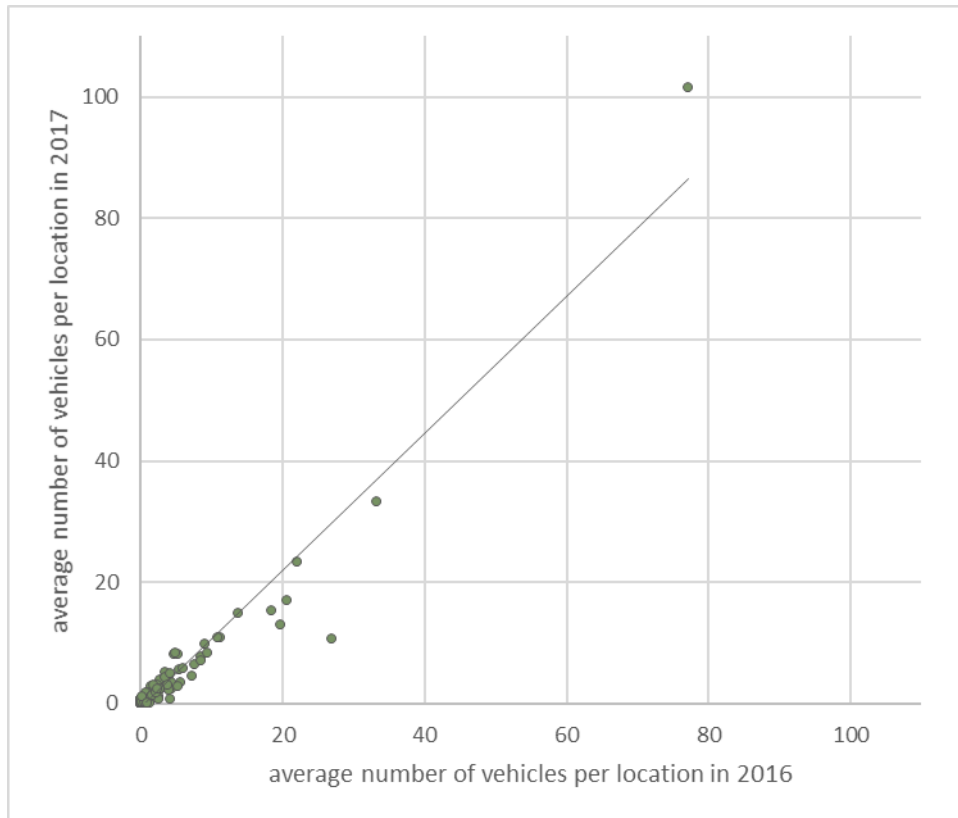
Figure 7: Scatterplot of data (average vehicles per location) in 2016 and 2017. Diagonal line fitted from point

3.34   Overall averages for sites suggest that in 2017 the largest reduction from predicted was at Colony Bog & Bagshot Heath, followed by Horsell Common and Ockham & Wisley Commons, while the largest increase was at Broadmoor to Bagshot Woods & Heaths, followed by Whitmoor Common.

Map 11: Distribution of parking locations, categorised by the relationship with predicated data values from 2016. Red points are those which decreased compared to prediced and blue increased. Size of point shows the scale of change.

Legend

TBH SPA

Positive residual - value in 2017 greater than expected

Negative residual - value in 2017 less than expected

scale of residual

19.2557
15
10
5

0   5   10 km
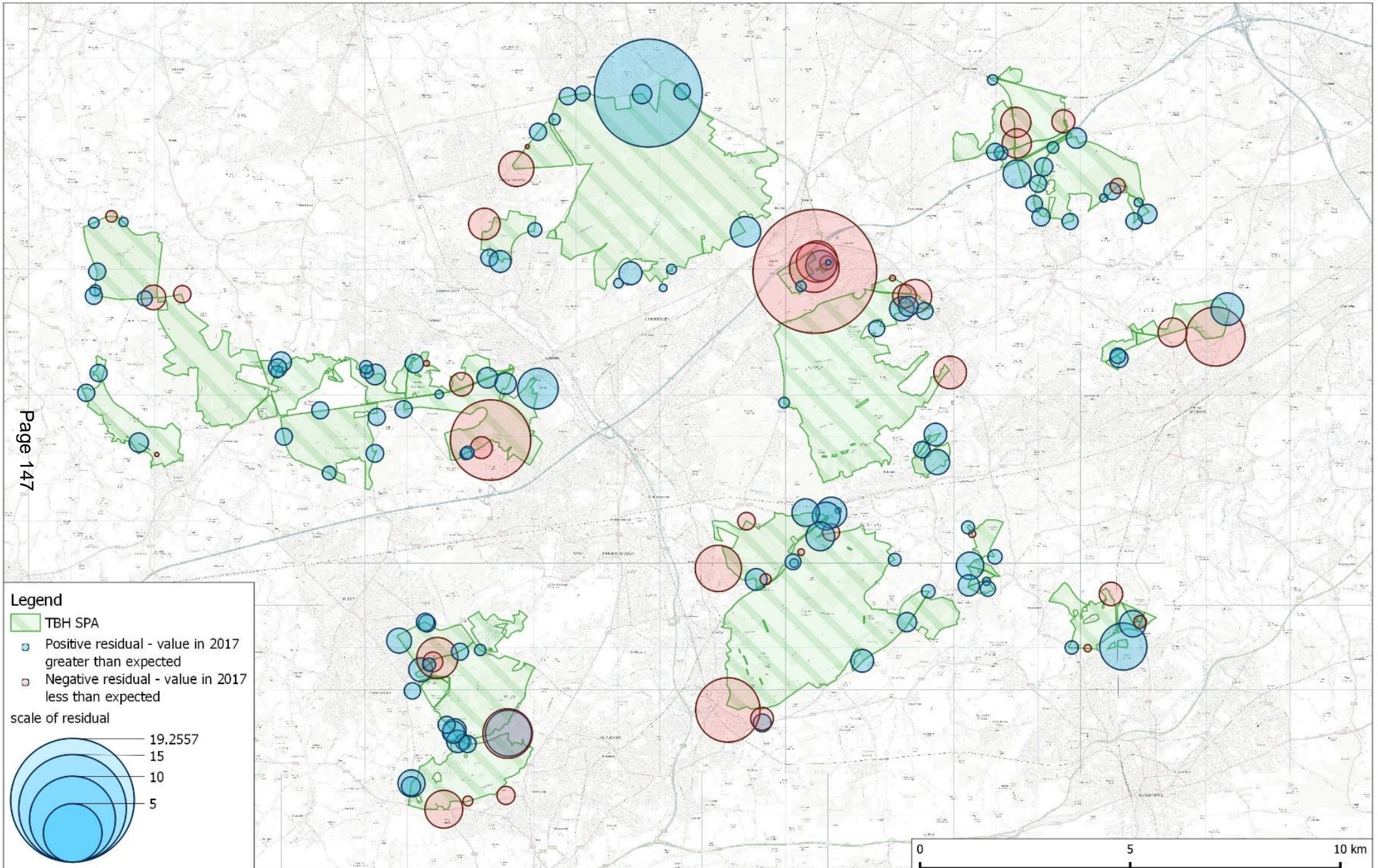
Discussion and Conclusions

3.36   The overall totals suggest a slight reduction in the total number of vehicles recorded at parking locations around the SPA in 2016 (16,88) compared to 2017 (2,306). When averaged the number becomes near identical; 153.7 vehicles per transect in 2017 and 153.5 per transect in 2016. However, examining only these totals, it is difficult to produce firm conclusions due to the different approaches taken.

3.37   A better comparison of 2016 and 2017 data was conducted using comparable dates only. This approached showed very slightly lower numbers in 2017 compared to 2016 - however this was unlikely to be significant. The examination of individual parking locations between 2016 and 2017 showed many parking locations with reduced numbers on average. Many of these reductions were at medium sized parking locations, compared to the single largest increase which was at the largest parking location on the SPA, The Lookout. The results suggest, at least on weekdays, that use in summer is lowest, especially compared to spring and autumn. Weekend use, however, can be much greater.

3.38   These results therefore suggest: 1) an overall reduction in use; and 2) a move away from many smaller parking locations to single large locations. This results in a change in the distribution of visitor pressure, with higher, concentrated densities in a few locations, compared to a more even spread across the whole area. Additional data are required from further years to determine whether this pattern is real and future counts need to be conducted in line with the previous counts to give confidence in the findings. Comparisons of data across multiple years will reduce variability in counts from weather patterns and overall seasonal variability to show clearer long-term trends.

Recommendations

3.39   Previous years used variable surveying approaches. Moving forward the methodology used in 2017 appears a robust one and is important this is now taken as the standard.

3.40   There is also a need to audit the parking locations. The types of parking locations (e.g. formal car park, verge, layby), are currently mixed, with some similar categories. These could be categorised in a more rigorous manner to better understand types and the changes in these. There could also be categorisation of the types of access, for example; but also; heath, heath and visitor facilities (e.g. leisure facilities), heath and other greenspaces (e.g. amenity areas), heath and residential (or permit holder) etc. This would allow clearer understanding of

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whether the level of change is a concern. In addition, the last audit of parking spaces at each location was in 2012 and a check is overdue.

3.41   Auditing would ideally involve a rolling 3 to 5-year check (any more than this would seem a very long period of change) and this could be done on quiet transect dates or over several transect dates. The audit would record changes such as the disappearance of old parking locations or appearance of new parking locations, along with a number of details for each parking location, such as parking capacity, type, substrate type, signage or interpretation, parking charges etc.

3.42   Furthermore, parking locations will also disappear, and new locations appear over time and these changes need to be considered. It is also suggested on a similar time scale (e.g. every 3 years) that a review of the locations counted is undertaken, with any new locations added or closed locations removed. This still needs to be a rational subset as it will be impossible to count all locations.

3.43   With regards to data collection, it is suggested that there should be some changes to the forms used. One recommendation would be to have a column which states which locations are surveyed (e.g. y/n) to make this explicit. In addition, a column to state when a car park is closed should be added, so that it is clear if the car-park has been visited and not currently accessible.

3.44   It could also be useful to have an option to record specific notes to each car park in the full dataset. There are some occasions when the accompanying notes state vehicles being parked in "layby opposite" where it is then unclear if these were included in the final count value and if these are counted every time. This also appears to occur when a car park is closed and cars are parked on the verge outside the parking location instead. Different surveyors may have different views on how this should be categorised and therefore standard guidelines would be useful. A note column for each parking location on recording sheets could make clear if these are included or not and the number of vehicles parked outside. It is suggested that in such examples, where a distinct new area is consistently being used, that a new numbered parking location should be set up to record it.

3.45   Finally, it would appear some parking locations were missed by surveyors, although this was very infrequent. In the longer term this may continue to happen infrequently, particularly if new staff are doing the surveys. It is suggested that some changes to methods could be made to ensure this does not happen, such as a clearer checklist of car parks or using route programmed GPS or phone apps to facilitate surveyors finding locations.

4.   Automated counter methodology and analysis

Counter dataset

4.1   The full set of counters for the whole TBH is 36 counters – as shown in Map 11. During 2017, all but one sensor was collecting data. The single sensor with no data was SAMM027, which was vandalised back in 2016 and never reinstated. The full list of counters is provided in Table 8.

4.2   Map 11 shows the distribution of all 36 counters, categorised by the type of access they reflect. The distribution, ownership and types of counter were discussed in detail in the 2016 analysis (see Panter, 2017). As no new sensors are included and the distribution has not changed this is not repeated in this report.

4.3   The raw sensor data were provided directly by the TBHP staff, and these were then reformatted and cleaned (to remove errors) prior to any analysis.

Table 8: Summary table of the locations of the 36 sensors. Sorted by SSSI then by ID. Final columns indicate sensors which had data in 2016 (21 sensors) and 2017 (35 sensors).

SSSI Name	Sensor ID	Name	2016	2017
Ash to Brookwood Heaths	SAMM001	Bullswater Common - North Corral	✓	✓
	SAMM004	Bullswater Common - South Corral	✓	✓
	SAMM005	Ash Ranges - Opposite Potters		✓
	SAMM008	Ash Ranges - Henley Park		✓
	SAMM013	Ash Ranges - Gapemouth Road north		✓
	SAMM017	Ash Ranges - Opposite Royal Oak pub		✓
	SAMM019	Ash Ranges - Mychett Place Road middle layby		✓
	SAMM020	Ash Ranges - Mychett Place Road south inside flags		✓
	SAMM021	Ash Ranges - Nightingale Road		✓
	SAMM028	Ash Ranges - Gapemouth Road railway bridge		✓
Bourley & Long Valley	SAMM007	Forest of Eversley - Aldershot Road car park		✓
	SAMM014	Forest of Eversley - Pedestrian entrance		✓
	SAMM018	Forest of Eversley - Florence Road		✓
Bramshill to Heath Warren Wood	SAMM027	Heath Warren Wood - St. Neots Road	✓	
	SAMM030	Heath Warren Wood - Bramshill Depot	✓	✓
Broadmoor to Bagshot Woods & Heaths	SAMM002	Broadmoor Bottom - Owlsmoor	✓	✓
	SAMM031	Crowthorne - Devils Hwy	✓	✓
Castle Bottom to Yateley and Hawley Commons	SAMM016	Yateley Common - Vigo Lane	✓	✓
	SAMM029	Yateley Common - A30		✓
Chobham Common	SAMM024	Chobham Common - Clearmount	✓	✓
	SAMM026	Chobham Common - Fishpool	✓	✓
	SAMM034	Chobham Common - Burma Rd	✓	✓

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SSSI Name	Sensor ID	Name	2016	2017
	SAMM036	Chobham Common - Staple Hill	✓	✓
Colony Bog & Bagshot Heath	SAMM006	Bisley		✓
	SAMM011	Lightwater Country Park - Viewpoint	✓	✓
	SAMM012	Brentmoor Heath	✓	✓
	SAMM015	Brentmoor - Red Road		✓
	SAMM022	Barossa - Kings Ride		✓
	SAMM035	Lightwater Country Park - Leisure Centre	✓	✓
Horsell Common	SAMM003	Horsell Common - Horsell Common Rd	✓	✓
	SAMM032	Horsell Common - Near 6-ways car park	✓	✓
Ockham & Wisley Commons	SAMM033	Ockham Common	✓	✓
Sandhurst to Owlsmoor Bogs & Heaths	SAMM025	Wildmoor Heath - Thibet Rd	✓	✓
Whitmoor Common	SAMM009	Whitmoor - A320 Guildford Rd	✓	✓
	SAMM010	Whitmoor Common - Salt Box Rd side	✓	✓
	SAMM023	Whitmoor Common - Path to St. Mary's Church	✓	✓

Map 11: Distribution of sensors, categorised by the type of access and number of spaces at parking locations.

Legend

▨ TBH SPA

● Car park

● Foot only

● Lay-by / Track / Verge

Points sized by associated number of parking spaces

61
60
40
20

0   5   10 km

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Data reformatting

4.4   The raw dataset for 2017 provided by the TBHP staff consisted of 262,230
        data rows from the 35 sensors (as listed in Table 8). This single dataset
        contained collated individual data files which were downloaded from each
        sensor on a regular basis (every two to three months). The combined data
        set from all 35 sensors detailed:

        • The sensor unit name;
        • Data point id (id column which consecutively counts the number of data
          rows from each 'file' – each file being a separate data download);
        • A date-time column;
        • The number of events per hour (or single event for some units); and
        • Any data handling notes.

4.5   Into these raw data were inserted a series of columns used for the data
        analysis: date, day of month, month-year, and hour. The normal format for
        the sensors was for each data row to detail the total number of events (an
        'event' being a recorded pass) for the given hour. Issues in last year's dataset
        resulted from sensors recording individual passes as separate rows, rather
        than hourly totals, however no instances were recorded in these data. Two
        duplicate hour data rows were recorded (i.e. two values for a single sensor
        on a single date and hour), and values summed in these instances.

4.6   Table 9 shows a summary of the completeness of raw data recorded,
        following the initial data reformatting but not data cleaning.

Table 9: Monthly summary of raw data recording each sensor, values indicate the estimated number of days the sensor was collecting data for. Values in brackets indicate the percentage of hours for which the sensor was recording data out of the total hours in the month. When percentages are rounded to 100% the percentage is not stated, but values highlighted in bold.

Sensor ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
SAMM001	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	16.4 (55)	**31**	**31**	**30**	**31**	**30**	**31**
SAMM002	**31**	28 (97)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM003	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM004	0 (0)	19.3 (67)	**31**	**30**	**31**	**30**	**31**	21.5 (69)	0 (0)	0 (0)	0 (0)	0 (0)
SAMM005	0 (0)	0 (0)	17.5 (56)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM006	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	17.5 (58)	**31**	**31**	**30**	**31**	**30**	**31**
SAMM007	0 (0)	0 (0)	15.3 (49)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM008	0 (0)	0 (0)	11.5 (37)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM009	**31**	28 (97)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM010	**31**	28 (97)	**31**	**30**	3.4 (11)	16.6 (55)	**31**	**31**	**30**	**31**	**30**	**31**
SAMM011	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	22.6 (73)	0 (0)	0 (0)	0 (0)	0 (0)
SAMM012	**31**	28 (97)	**31**	**30**	**30.9**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM013	0 (0)	0 (0)	16.5 (53)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM014	0 (0)	0 (0)	15.4 (50)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM015	0 (0)	0 (0)	11.3 (37)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM016	**31**	28 (97)	**31**	**30**	**31**	**30**	**31**	30.5 (98)	**30**	**31**	**30**	**31**
SAMM017	0 (0)	0 (0)	14.4 (47)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM018	0 (0)	0 (0)	15.5 (50)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM019	0 (0)	0 (0)	17.4 (56)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM020	0 (0)	0 (0)	11.5 (37)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM021	0 (0)	0 (0)	17.5 (57)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM022	0 (0)	0 (0)	18.3 (59)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM023	**31**	28 (96)	**31**	**30**	3.5 (11)	16.5 (55)	**31**	**31**	**30**	**31**	**30**	**31**
SAMM024	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM025	**31**	28 (97)	**31**	**30**	**30.9**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM026	**31**	28 (97)	**31**	**30**	**30.9**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM028	0 (0)	0 (0)	16.5 (53)	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM029	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	17.5 (58)	**31**	**31**	**30**	**31**	**30**	**31**
SAMM030	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM031	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM032	**31**	28 (97)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM033	**31**	28 (96)	**31**	**30**	**30.9**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM034	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM035	**31**	28 (97)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**
SAMM036	**31**	28 (96)	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**31**

Data cleaning

4.7   Manual cleaning of the data was required to remove data recorded which appeared spurious or was completely lacking (e.g. false zeros).

4.8   There were notably fewer errors within the data compared to 2016. Furthermore, only one continuous section of data with zero values was

noted from sensors. This was for the sensor SAMM010 between 21/02/2017 and 14/06/17 and this data was simply filtered out.

4.9   However, the 2017 data held more sections with clearly inflated values, e.g. hourly values in the order of 1,000s. Such values often occur because of damage to the sensors and can be identified by very high values outside of the usual hours (e.g. for SAMM016 between 01/01/17 and 07/05/17 32% of passes were between 23:00 and 07:00). These issues were present in the data for the following sensors:

- SAMM011 (28/03/17- end)
- SAMM016 (start- 7/05/17);
- SAMM016 (30/09/17- end);

4.10   The final cleaning step was to eliminate data values which were the first and last data rows for each sensor's individual download files. These data relate to the time when the sensor was set up/downloaded, and the sensor will have recorded multiple passes during the setting-up/ re-testing process. As such the recorded data values for at least one hour would be incorrect.

4.11   Use of the multiple exclusion principles described above resulted in the removal of 10,801 data rows (therefore hours). However, to fully remove any further possible errors in the data and allow an easier and more accurate analysis of the data, we eliminated all data for the whole day from the sensor where any hourly values had been eliminated, leaving data relating to whole days only. This step resulted in a total of 12,608 rows excluded (inclusive of the above 10,801 rows), accounting for approximately 4% of data rows, and therefore hours, from total 262,228 (this compares to 9% of data in 2016).

4.12   The amount of data removed for each sensor and by month is expressed as a percentage of the total month in Table 9. February 2017 was the month with the highest percentage of data across all sensors removed.

Data analysis

4.13   Analyses were based on the raw pass values. These values are approximate to, but not directly equivalent to, the number of people.

4.14   In all data analysis, the raw number of passes are presented as averages based on hours or days of data recorded to account for data coverage. Data in this report are often presented as graphs or tables. Tables are used to provide actual values, with all table cells coloured to graphically show patterns at a glance. In these tables, row represents a counter, and cells within each row are coloured red to green, reflecting low to high values. It

should be noted that the red to green cell colouring in tables shows the ranking of cells, rather than the actual scale of difference between cells.

4.15   Detailed calibration of individual sensors would be required before the values presented could be converted into the number of people, rather than simply passes. Calibration is necessary as sensors may record people and groups in different ways or pick up on other passes (e.g. dogs), such that an approximation between passes and people is not consistent between sensors. This will also differ between the different types of locations, and types of sensor. Furthermore, the relative number of people entering and leaving will differ with the different visitor flow on sites. It cannot be assumed that the number of passes is double the amount of access (i.e. equal numbers of people passing in both directions, both entering and leaving) as in some locations the flow may be much more unidirectional.

4.16   For this reason, the relative differences between individual sensors may not always be true, and this could not be investigated in detail. However, within an individual sensor the changes over time are considered more reliable and are likely to be directly comparable.

5.   Automated counter results

5.1   After data cleaning, the 2017 dataset consisted of 35 sensors which had
collected 249,620 data rows, i.e. hours of data. The number of data rows for
individual sensors in this cleaned data set ranged from 2,039 (SAMM011,
equivalent to c. 85 days) to 8,616 for 12 sensors (equivalent to c. 359 days);
most sensors collected a reasonable amount of data, with a mean value of
7,132 hours per sensor (equivalent to c. 297 days).

5.2   The average number of passes recorded per hour is shown per month for
individual sensors in Table 10. The cell values in Table 10 have been coloured
to easily show the peaks and lows across individual sensors over time, and
also data gaps. SAMM011 had the largest data gap across the year, with nine
months of missing data. It should also be noted that many sensors had a
data gap during January and February, and this must be considered when
examining other data patterns.

5.3   The typical values (mean with standard error) across each of the months of
data are shown for each sensor in the final column of Table 10. These
averages ranged from 0.1 people per hour (SAMM022) to 17.6 (SAMM032).

5.4   The maximum recorded average for a sensor in a single month was 20.4 for
SAMM016 in September, followed by 20.1 for SAMM032 in April. Overall, 15
sensors (43%) recorded a maximum value in April, considerably more than
any other month; next highest was June by just 4 sensors, and July, August
and March, all 3 sensors. Monthly variation is also expressed for each
location in Map 12.

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Table 10: Average number of passes per hour in each month for individual sensors, with cells coloured red to green for low to high values for each sensor. The final column shows the overall mean and standard error of monthly values, with top five values in red bold and lowest five in blue bold.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Mean ± SE
SAMM001						0.7	0.5	0.5	0.5	0.5	0.6	0.4	0.5 ± 0.04
SAMM002	1.8	1.9	2.4	2.5	2.1	1.9	2	2.3	2.1	2	2	1.8	2.1 ± 0.07
SAMM003	1.1	1	1	1.8	1.8	0.9	1	1.3	1.5	1.6	1.5	1.4	1.4 ± 0.09
SAMM004		0.4	0.4	0.6	0.4	0.6	0.3	0.4					0.4 ± 0.05
SAMM005			13.4	14.7	13.7	13	13.5	13.2	12.8	12.7	11.2	9.9	**12.8 ± 0.43**
SAMM006						0.7	0.7	0.9	0.6	0.6	0.5	0.6	0.7 ± 0.04
SAMM007			10.9	10.1	9.9	9.2	10	9.7	7.9	10.6	10.1	9	9.8 ± 0.27
SAMM008			0.8	1.3	0.9	1	1.1	0.9	1	0.9	0.6	0.5	0.9 ± 0.07
SAMM009	0.3	0.2	0.3	0.7	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.4 ± 0.03
SAMM010	0.6	0.6	0	0	0	2.6	2.4	2.7	2.4	2.5	2.1	1.8	1.5 ± 0.33
SAMM011	4.5	4.6	6.3										5.1 ± 0.6
SAMM012	2.4	1.4	1.5	2.6	2.2	2.1	1.8	1.8	1.9	2	0.2	0.2	1.7 ± 0.22
SAMM013			2.5	2.6	2.8	3.4	2.4	2.4	2.7	2.5	1.2	0.7	2.3 ± 0.25
SAMM014			2.1	1.4	1.4	1.1	0.9	1	0.9	1	1	0.8	1.2 ± 0.12
SAMM015			0.4	0.6	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.3	**0.3 ± 0.04**
SAMM016					6.5	13.2	9.1	10.3	20.4	-	-	-	**11.9 ± 2.38**
SAMM017					1.7	1.4	1.7	1.5	1.5	1.4	1.3	1.3	1.5 ± 0.04
SAMM018			10.9	13.6	11.7	10.8	12.2	12.1	12.5	13.2	12.2	11.1	**12.0 ± 0.29**
SAMM019			0.7	0.7	0.7	0.5	0.6	0.7	0.5	0.5	0.4	0.4	0.6 ± 0.04
SAMM020			2.7	2.7	2.5	1.7	2.3	2.5	1.9	2	2	1.4	2.2 ± 0.14
SAMM021			1	1.1	1	1	0.8	1	1	1.1	0.9	1.1	1 ± 0.03
SAMM022			13	15.1	13.8	12	13	12.9	12.5	13.4	12.5	13.6	**13.2 ± 0.28**
SAMM023	1.9	1.2	1.5	3.8	3	2.8	2.8	2.9	2.7	2.7	2.3	2.2	2.5 ± 0.2
SAMM024	0	0	0.1	0.1	0.3	0.2	0.4	0.2	0.2	0.1	0.1	0	**0.2 ± 0.03**
SAMM025	0	0	0.1	0.2	0.3	0.4	0.4	0.3	0.1	0.1	0	0	**0.2 ± 0.04**
SAMM026	0.1	0.2	0.3	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0	0.1	**0.2 ± 0.04**
SAMM028			5.6	3.4	4.4	3.9	3.6	3.7	3.3	5.6	7.3	4.7	4.6 ± 0.41
SAMM029						1.5	1.6	1.6	1.2	1.1	0.8	0.8	1.2 ± 0.13
SAMM030	1.4	2.2	1.5	2	1.8	1.7	1.8	1.8	1.8	1.9	1.6	1.2	1.7 ± 0.08
SAMM031	1	1.4	1.4	1.8	1.2	1.4	1.3	1.3	1.2	1.5	1.1	1	1.3 ± 0.07
SAMM032	15	16.6	18	20.1	17.8	19.4	16.9	19.3	18.5	18.4	14.9	16.9	**17.6 ± 0.47**
SAMM033	0.2	0.1	0	0.2	0	0.1	0.1	0.1	0.1	0	0	0	**0.1 ± 0.01**
SAMM034	0.7	0.5	0.5	1.5	1.5	1.5	1.4	1.7	1.4	1.5	1	0.7	1.1 ± 0.13
SAMM035	6.5	6.9	5.6	5.9	5	6.2	4.7	5	5.3	4.7	7.3	6.1	5.8 ± 0.25
SAMM036	2	1.6	2	2.7	1.8	1.6	1.6	1.7	1.5	1.9	1.6	1.6	1.8 ± 0.09
Mean	**2.3**	**2.3**	**3.5**	**3.9**	**3.6**	**3.5**	**3.3**	**3.5**	**3.7**	**3.4**	**3.1**	**2.9**	**3.2 ± 0.15**

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5.6   The temporal variation in data across all sensors is displayed in the graph in Figure 8. This shows the highest peak in April, followed by a slightly lower peak in September. Months with the lowest number of passes were January and February, but many sensors lacked data during these months (see Table 10).

5.7   Interestingly, this monthly pattern is contrary to the 2016 data which showed a peak in July, followed by August and lowest values in February and March, but these were also influenced by incomplete data.
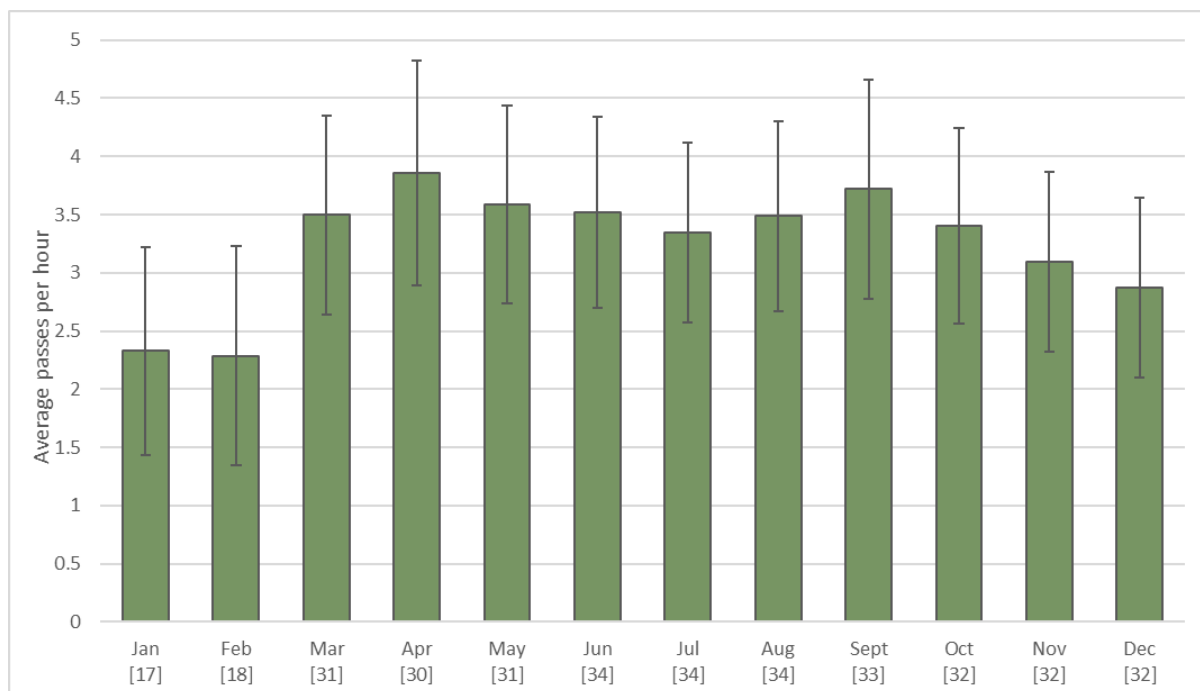
Figure 8: Monthly mean number of passes per hour, calculated from mean values for each sensor; bars show mean values with error lines as standard error. Values in square brackets for each month indicate the number of counters for which there was data.

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Map 12: Histograms to shown comparitive monthly number of passes per hour recorded at each sensor location.

Legend

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Month

- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sept
- Oct
- Nov
- Dec

0   5   10 km

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright Designated site boundaries download from the Natural England website © Natural England.
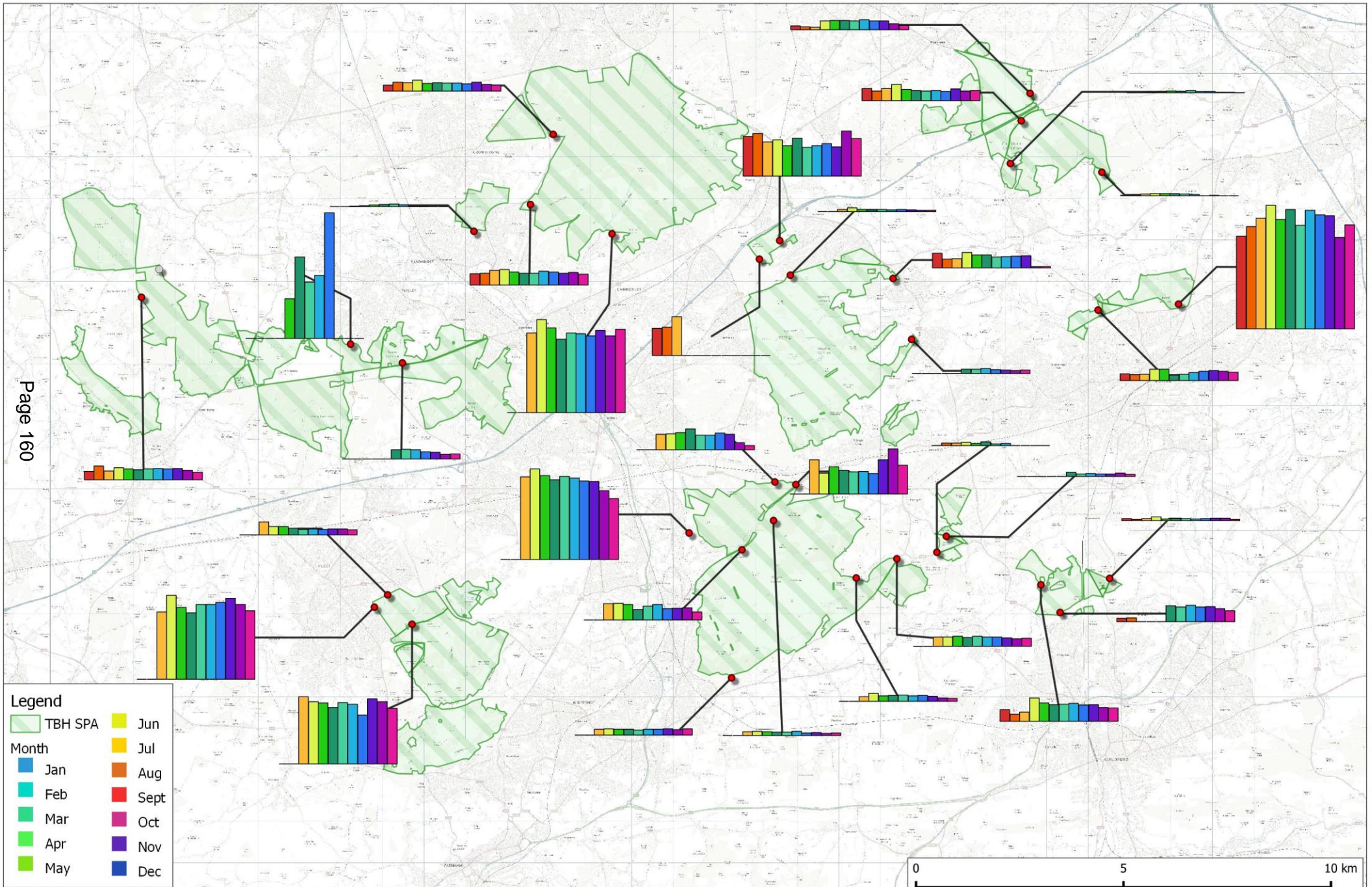
5.8   The hourly patterns across the day were also investigated, as shown in Table 11. Table 11 presents the average hourly number of passes for each sensor between the hours of 7am and 10pm expressed as a percentage of all passes recorded across the 24hr day, thus allowing comparison between sensors. As in all tables, red to green colouring shows the low to high values across the day. The final column shows the percentage of passes which were recorded outside these hours (i.e. between 22:00 and 06:59). The percentages are also shown graphically in Map 13.

5.9   The individual sensors show variable patterns in access. The average hourly percentage from all sensors showed a peak value of 9.3% for the hour 12:00, followed by 9.1% for 13:00 and 15:00, 8.6% for 11:00 and 8.4% for 14:00. However, most illustrate either a single peak or twin peak distributions of busyness across the day for different locations. Sensors such as SAMM006 and SAMM007 show some of the clearest twin peaks, but other sensors also show this pattern to varying degrees. A clear single peak appears most evident at SAMM034, which also shows the largest percentage for any hour, with 31% of passes recorded between 15:00-15:59 – this was considered likely a genuine pattern, as the same pattern was observed in last year's data (although only 24%).

5.10   SAMM016 shows a concerning pattern with 32% of passes outside of the 07:00 -22:00 window. The extent to which this is consistent error or actual night-time use of the site is unclear as the sensor did appear to be working in other aspects.

5.11   Hourly data shown in Table 11 and Map 13 are across the entire year of data. Hourly patterns are likely to vary across different types of day (e.g. weekday and weekend) and more clearly across seasons (due to daylight hours). However, different sensors were working at different times of year and therefore the above influences will vary for each sensor.

5.12   Table 12 is therefore used to simplify patterns and show the differences in hourly values in just the Sensitive Period (between 1st March and 15th September). With increased day length in the Spring and Summer most sensors show a wider range of hours of visiting during the Sensitive Period. This is often more noticeable in the evenings for example at sensors; SAMM019 and SAMM020, where 10% of passes were between 21:00 and 22:00.

Table 11: Hourly percentage of passes recorded for the different sensors, with cells coloured red to green for low to high values. Percentage calculation based on all recorded passes during the 24 hrs, but only values between 07:00 and 21:00 shown. The final "N/A" column provides the total percentage of values outside the 07:00-22:00 window. Based on all data across the year, which may be variable for the different sensors.

Counter	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	N/A
SAMM001	0	1	7	8	8	9	12	7	8	8	10	9	6	5	2	0
SAMM002	2	5	7	8	8	8	8	9	9	8	9	7	5	3	2	2
SAMM003	1	1	3	7	14	15	12	11	8	9	7	5	3	2	1	1
SAMM004	1	6	8	6	8	7	7	11	7	8	7	5	5	2	1	11
SAMM005	2	4	7	8	9	8	7	7	7	7	7	8	7	5	3	4
SAMM006	1	3	8	9	9	7	7	7	8	8	9	8	7	5	2	2
SAMM007	0	1	4	6	10	10	9	8	8	9	10	9	7	5	2	2
SAMM008	0	1	2	5	10	13	13	10	9	9	8	6	5	5	3	1
SAMM009	1	1	2	4	7	5	6	11	20	15	12	6	4	2	1	3
SAMM010	1	4	7	7	7	7	8	8	8	8	9	9	8	5	3	1
SAMM011	1	2	9	10	12	11	8	8	13	11	7	4	1	1	0	2
SAMM012	2	3	6	8	10	9	10	6	6	7	9	7	5	4	2	6
SAMM013	0	1	2	6	8	15	13	9	9	9	6	6	4	3	4	5
SAMM014	0	2	9	8	10	6	5	5	5	6	9	14	10	4	3	4
SAMM015	1	4	6	8	9	9	7	10	10	6	7	5	7	5	6	0
SAMM016	4	4	4	3	4	7	8	6	5	6	4	3	4	3	3	32
SAMM017	2	5	7	6	5	5	8	7	9	9	8	9	9	5	3	3
SAMM018	1	2	4	8	11	9	8	8	8	7	8	9	7	4	3	3
SAMM019	1	2	2	4	7	8	7	7	6	6	8	8	11	11	7	5
SAMM020	1	10	6	4	5	5	5	5	4	4	5	8	11	11	8	8
SAMM021	3	3	5	7	9	10	8	7	5	6	7	10	10	6	2	2
SAMM022	0	3	5	8	9	10	9	8	7	7	8	9	7	4	3	3
SAMM023	0	1	2	6	9	11	12	9	9	10	9	7	8	3	2	2
SAMM024	0	2	4	5	10	9	9	7	9	10	11	6	5	6	4	3
SAMM025	1	3	4	7	8	7	5	3	4	5	6	9	10	12	8	8
SAMM026	0	1	2	5	7	8	10	7	11	12	11	11	6	5	2	2
SAMM028	0	3	6	9	12	10	10	8	6	7	7	6	3	4	4	5
SAMM029	1	1	3	6	9	12	8	7	8	7	11	10	8	5	3	1
SAMM030	1	3	4	7	11	13	13	10	7	7	8	6	3	2	1	4
SAMM031	0	1	3	5	10	13	11	10	7	7	7	7	6	5	4	4
SAMM032	1	2	4	6	9	10	10	10	10	10	10	8	5	3	2	0
SAMM033	0	1	3	5	8	11	15	14	12	8	3	0	2	0	0	18
SAMM034	0	1	3	1	3	6	6	12	35	11	6	4	3	4	2	3
SAMM035	0	1	5	8	11	11	12	10	8	8	8	7	4	3	2	2
SAMM036	0	0	1	2	6	11	14	12	12	12	11	7	4	3	2	3

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Map 13: Histograms to show comparitive hourly percentage of passes per hour recorded at each sensor location.

Legend

TBH SPA
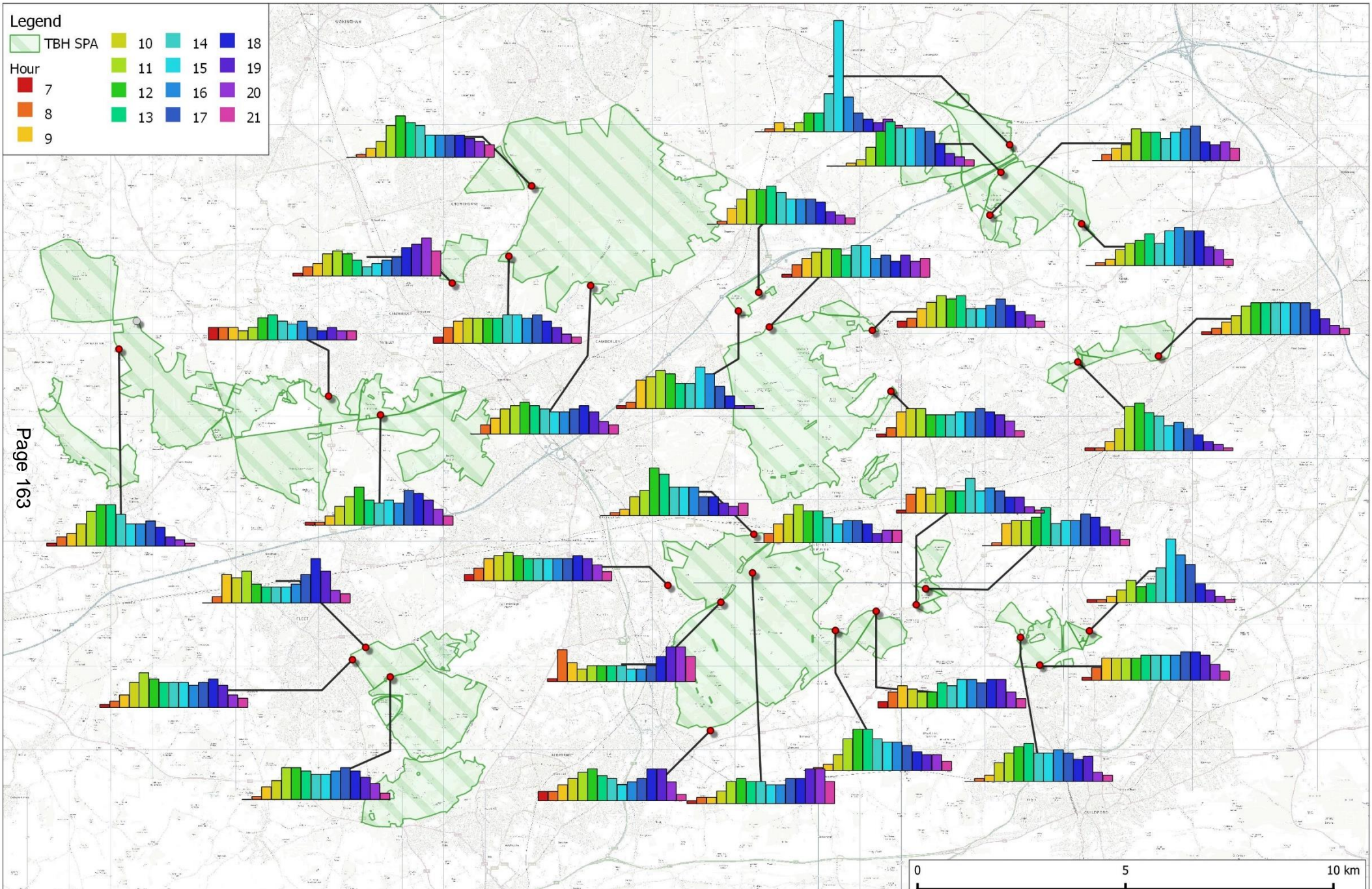
Hour
7
8
9
10
11
12
13
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15
16
17
18
19
20
21

Table 12: Hourly percentage of passes recorded for the different sensors during the Sensitive Period (1st Mar to 15th Sept), with cells coloured red to green for low to high values. Each row has a final column for the percentage completeness of the data, which has to be considered when examining the patterns shown.

Counter	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	N/A
SAMM001	0	3	11	9	8	6	11	5	7	8	9	5	5	8	3	2
SAMM002	3	6	7	8	7	7	7	7	8	7	8	8	6	4	3	4
SAMM003	1	3	4	8	14	12	11	9	7	8	7	6	5	3	2	0
SAMM004	1	6	8	6	7	7	6	11	7	7	6	5	5	2	2	14
SAMM005	2	5	8	9	9	7	5	6	6	6	6	8	9	7	4	3
SAMM006	1	5	11	10	7	5	7	8	6	8	9	6	7	7	3	0
SAMM007	0	2	4	6	10	10	8	7	7	8	9	9	8	6	3	3
SAMM008	0	1	3	6	9	13	13	9	8	8	7	7	5	6	3	2
SAMM009	1	1	2	4	7	4	7	11	15	16	14	7	5	3	1	2
SAMM010	2	6	8	7	7	6	7	6	6	7	8	7	9	8	4	2
SAMM011	1	3	9	10	11	9	7	8	11	10	8	6	3	1	0	3
SAMM012	3	4	7	9	11	9	6	6	6	7	9	7	6	4	3	3
SAMM013	0	1	2	6	8	16	13	8	8	8	6	5	5	4	4	6
SAMM014	1	3	11	8	10	6	5	4	4	6	9	12	9	6	5	1
SAMM015	1	5	7	7	8	9	6	8	10	5	6	4	9	6	9	0
SAMM016	4	4	4	3	3	7	3	4	3	3	2	2	3	3	3	49
SAMM017	3	7	7	6	4	5	8	7	9	8	7	8	9	5	3	4
SAMM018	1	3	4	9	10	8	7	7	8	6	7	8	7	5	4	6
SAMM019	1	2	2	4	7	8	5	6	5	5	8	8	11	14	10	4
SAMM020	1	11	5	4	4	5	5	4	3	3	4	7	12	13	10	9
SAMM021	3	3	6	7	9	11	7	5	4	6	7	10	9	7	3	3
SAMM022	1	4	6	8	9	9	8	6	6	7	7	8	7	6	4	4
SAMM023	1	1	3	6	9	10	10	7	8	9	7	7	11	5	3	3
SAMM024	0	2	5	4	10	8	8	8	9	10	10	5	5	7	4	5
SAMM025	1	3	4	7	7	6	5	3	4	5	6	8	11	13	9	8
SAMM026	0	1	2	5	7	8	10	7	10	12	10	11	7	6	2	2
SAMM028	0	1	5	9	13	11	9	7	6	5	5	5	5	5	6	8
SAMM029	2	2	3	5	10	10	8	5	6	5	11	9	9	7	4	4
SAMM030	2	4	5	9	12	13	10	6	6	8	8	6	4	3	1	3
SAMM031	1	2	4	5	11	11	10	7	7	7	6	6	7	7	6	3
SAMM032	1	2	4	7	9	10	9	9	9	9	9	7	6	4	3	2
SAMM033	0	2	4	4	8	11	14	12	10	7	3	0	2	0	0	23
SAMM034	0	1	4	1	3	6	5	13	36	5	6	4	4	5	3	4
SAMM035	1	2	6	10	11	10	10	7	6	7	8	7	6	5	3	1
SAMM036	0	0	2	3	8	12	13	10	10	11	10	7	5	4	3	2

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5.13   Variation across the days of the week was examined and shows the number of passes is strongly biased towards weekends, particularly Sundays, across most sensors. This is illustrated in Table 13 which shows the average number of daily passes recorded on each day of the week for individual sensors. These data show that on average the number of passes recorded was 37% higher at weekends compared to the average across all days, and 21% higher on Sundays (in 2016 this was slightly higher - 38% at weekends and 23% on Sundays). Use in 2017 could be as high as 55% on weekends and 33% on Sundays – as recorded at SAMM036. Although, at just five sensor locations (14% of sensors) the peak values were recorded on a weekday (SAMM004, 013, 016, 028, 034, but not SAMM023, which was in this list in 2016). SAMM031 and SAMM036 were notable in that double the expected proportion of passes in a day (i.e. one seventh) were recorded on the Sunday. This daily information is shown graphically as proportions for each day in Map 14.

Table 13: The average number of passes for each day of the week. The percentage of all passes which occur at weekends and Sundays is also shown.

	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	% of passes on weekends	% passes on Sundays
SAMM001	48.5	48.6	41.1	53.7	44.4	49.6	67.4	33	19
SAMM002	195.9	191.8	184.5	212.6	194.5	224.6	252.5	33	17
SAMM003	119.7	96.5	99.6	87.7	98.9	208.7	235.5	47	25
SAMM004	37.6	44.9	45.5	42.3	70.1	38.5	37.6	24	12
SAMM005	1156.5	1306.4	1113.7	1237.5	1123.4	1436.9	1584.9	34	18
SAMM006	50.6	61.2	59.1	74.1	68.6	68.5	74.4	31	16
SAMM007	862.3	848.5	862.5	831	852.4	1090.2	1429	37	21
SAMM008	68.3	77.1	80.9	71.8	66.4	121.2	144	42	23
SAMM009	39.1	22.2	33.7	29.8	40.5	41.3	55.6	37	21
SAMM010	151.4	128.2	130.1	136.8	149.9	168.8	222.3	36	20
SAMM011	426.9	449	359	379.1	394.1	824.7	753.8	44	21
SAMM012	143.8	167.5	135.9	134.2	147.8	183.2	272.1	38	23
SAMM013	348	226.2	210.6	202.5	236.7	212	197.7	25	12
SAMM014	111.7	122	92.4	104.8	116.9	104.7	133.5	30	17
SAMM015	29	30.2	24	26	21.1	44.8	65.7	46	27
SAMM016	1361.5	1561.9	980.3	960.2	898	1220.6	1464.2	32	17
SAMM017	136.1	146.7	136.9	151.7	138.6	138.3	186.4	31	18
SAMM018	1255.2	1224.5	1103.4	1150.9	1204.5	1168.8	1361.3	30	16
SAMM019	47.8	61	40.3	49.5	41.3	74.1	78.6	39	20
SAMM020	204.2	158.9	159.5	155.8	164.8	290.3	355.6	43	24
SAMM021	101.9	95.1	93.1	86.5	78	108.3	126.5	34	18
SAMM022	1186.8	1175.6	1139.7	1164	1118.1	1525.7	1912.1	37	21
SAMM023	218.2	186.9	174.1	219.9	200.4	355.4	357.8	42	21
SAMM024	11.6	10.4	12.4	12.7	15.2	18.2	26.5	42	25
SAMM025	15	18.6	16.2	13.9	13.6	13.9	19.1	30	17
SAMM026	19.2	18.8	15	16.7	17.4	29.7	25.2	39	18
SAMM028	444	567	486.4	509.6	396.9	350.4	405.9	24	13
SAMM029	118.8	105.6	89.9	94	95.4	136.6	205.8	40	24
SAMM030	134.5	145	123.9	115.4	134.1	225.4	329.4	46	27
SAMM031	82.6	77.1	99	88.5	87.1	199.6	279.4	52	31
SAMM032	1618.3	1516.7	1427	1511.6	1591.5	2182.1	2505.2	38	20
SAMM033	6.4	5.2	7.1	5.1	4.4	11.8	14	48	26
SAMM034	126.8	146.2	110.7	126.3	117.2	72.4	108.3	22	13
SAMM035	476.7	602.2	478.3	566.8	440.7	568.9	894.4	36	22
SAMM036	149.8	118.8	85	104.6	109.5	278.4	414.7	55	33

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Map 14: Pie charts to show proportion of passes recorded on different days of the week at each sensor location.

Legend

TBH SPA

Day of week
- %Mon
- %Tues
- %Weds
- %Thurs
- %Fri
- %Sat
- %Sun

0   5   10 km
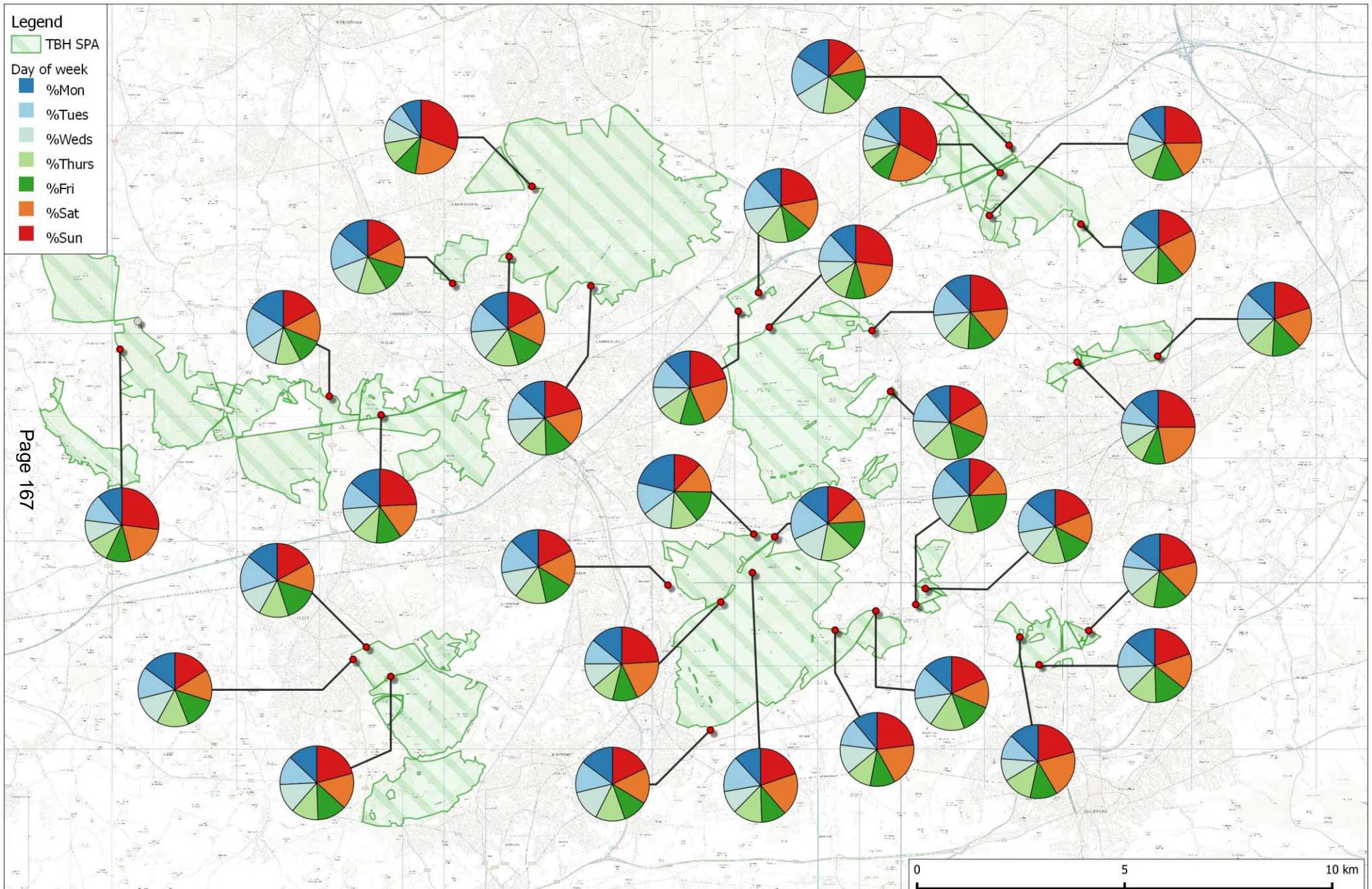
5.14   Variation across the year was most interesting for the Sensitive Period, from 1st March to 15th September, during which SPA bird species are nesting. Data were therefore split into the Sensitive and Non-Sensitive Periods.

5.15   Overall, the typical passes per day was roughly equal outside-Sensitive Period (c. autumn/ winter) compared to the Sensitive Period (c. spring/ summer). Across all sensors, 55% of recorded passes were in the Sensitive Period compared to 45% in the Non-Sensitive Period (in the 2016 data this was 50:50). However, it has to be noted that these periods have different day ranges: the Sensitive Period covers 260 days compared to 166 days for the Non-Sensitive Period.

5.16   The differences between the Sensitive and Non-Sensitive Periods were examined for each sensor and are presented in Table 14 and Map 8 (showing average passes per day). Table 14 shows typically the average daily number of passes was greater in the Sensitive Period than the Non-Sensitive Period. This is generally visible from the monthly data (see Table 10), which shows peaks in many individual months in spring and summer. At four locations, highlighted in Table 14, the mean number of passes per day in the Sensitive Period was greater than in the Non-Sensitive Period, these were; SAMM010, 018, 028 and 034.

Table 14: The average number of passes per day recorded for each sensor across the whole year and during the Sensitive Period (1st Mar to 15th Sept) and Non-Sensitive Periods. The final columns give the proportion of Non-Sensitive to Sensitive (col c/ sum (col c + col d) : col d/ sum(col c + col d)) and the ratio of Non-Sensitive passes to Sensitive (col b/d) . Values in bold indicate greater use on a day in the non-sensitive (winter/autumn) period.

Sensor	Mean number passes per days			Proportion of Non-Sensitive to Sensitive Period	Ratio of Non-Sensitive
	Non-Sensitive Period (c. autumn/ winter) [166]	Sensitive Period (c. spring/ summer) [260]	Whole Year [365]		
SAMM001	11.7	12.6	12.1	48:52	1.0
SAMM002	46.4	52.9	49.9	47:53	0.9
SAMM003	32.5	32.4	32.5	50:50	1.0
SAMM004	10.4	10.9	10.9	49:51	1.0
SAMM005	276.7	324.7	307.1	46:54	0.9
SAMM006	13.6	18	15.7	43:57	0.9
SAMM007	226.5	236.2	232.6	49:51	1.0
SAMM008	17.2	24.2	21.6	42:58	0.8
SAMM009	7.9	9.8	9	45:55	0.9
SAMM010	38.9	35.4	37.2	**52:48**	1.0
SAMM011	108.4	155	122.7	41:59	0.9
SAMM012	32.2	47.7	40.6	40:60	0.8
SAMM013	42.7	63.6	55.9	40:60	0.8
SAMM014	22.2	29.7	26.9	43:57	0.8
SAMM015	6.3	9.5	8.3	40:60	0.8
SAMM016	148.3	305.9	289.5	33:67	0.5
SAMM017	32.6	37.2	35.5	47:53	0.9
SAMM018	294.3	288	290.3	**51:49**	1.0
SAMM019	10.7	15	13.4	42:58	0.8
SAMM020	42.3	56.3	51	43:57	0.8
SAMM021	23.8	23.5	23.6	50:50	1.0
SAMM022	314.5	317.2	316.2	50:50	1.0
SAMM023	51.5	66.1	58.6	44:56	0.9
SAMM024	1.8	5.3	3.7	25:75	0.5
SAMM025	0.9	6.2	3.8	13:87	0.2
SAMM026	2.1	7.2	4.9	23:77	0.4
SAMM028	133.9	93	108.1	**59:41**	**1.2**
SAMM029	23	35.8	29	39:61	0.8
SAMM030	39.8	42.5	41.3	48:52	1.0
SAMM031	28.7	33.3	31.2	46:54	0.9
SAMM032	398.1	445.4	423.8	47:53	0.9
SAMM033	1.4	2.2	1.8	39:61	0.8
SAMM034	22.5	32.1	27.7	41:59	0.8
SAMM035	149.9	128	138	**54:46**	**1.1**
SAMM036	41.4	44.9	43.3	48:52	1.0
Total	71.1	86.2	79.8	45:55	0.9

Map 15: Average passes per day recorded during the Sensitive Period (c. Spring/Summer) compared to Non-Sensitive Period (c. Autumn/Winter).

Legend

TBH SPA

Season:

Non-sensitive
(c. Autumn/Winter)

Sensitive
(c. Spring/Summer)

300

150

50

0   5   10 km
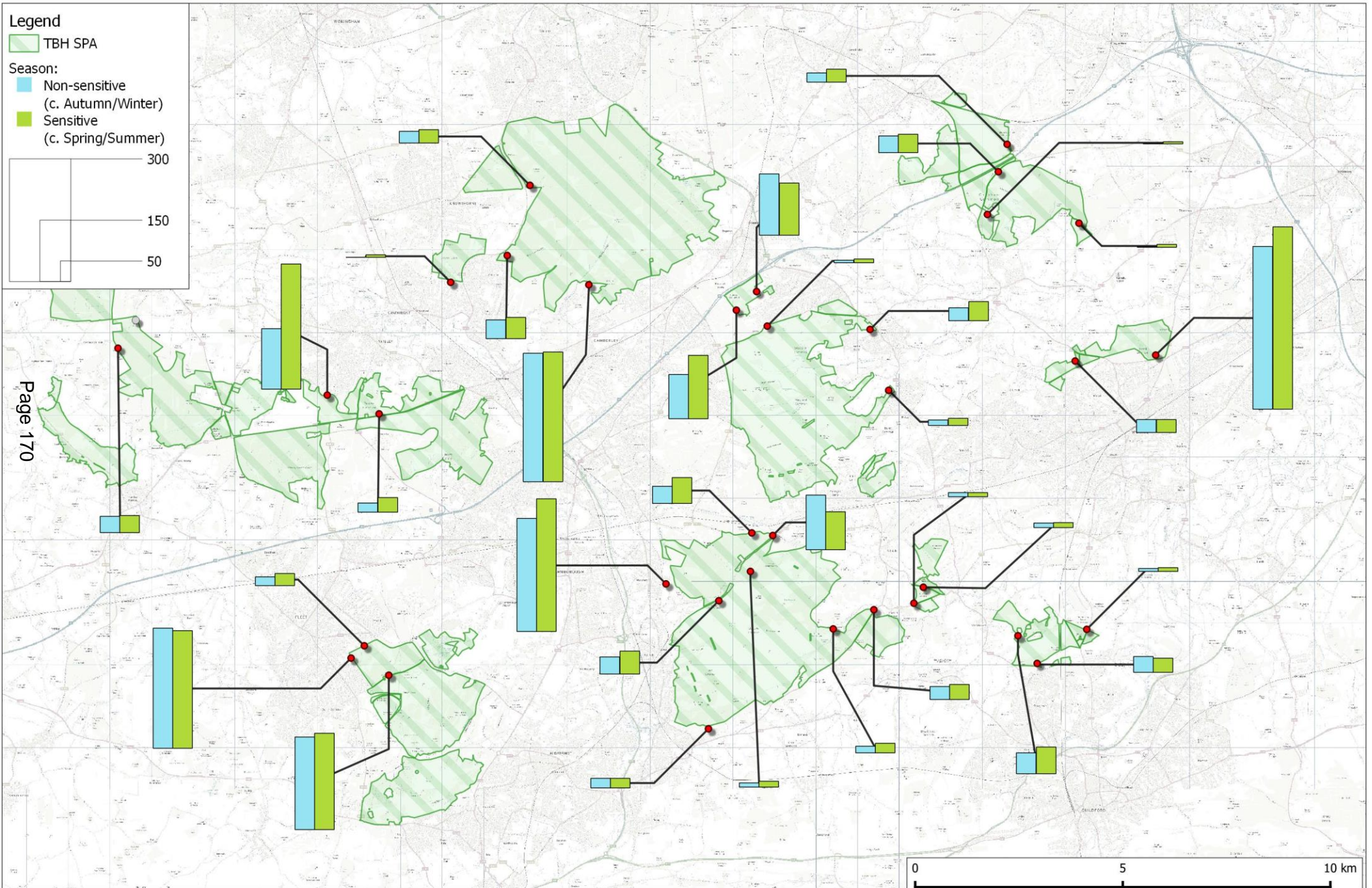
Discussion and Conclusions

5.17 The results from sensor data show an overall total of 829,661 passes recorded (after the removal of errors). This is based on the 35 sensors, but included a notable number of data gaps. Clearly sensors are working to capture a considerable amount of access onto the SPA. Sensors cover a wide range of levels of access ranging from an average of 7.7 passes per day (SAMM033) to 1,766 passes per day (SAMM032). Understanding these patterns over time is important for long-term monitoring.

5.18 Overall the reliability of data presented appears good, and a clear improvement on the 2016 dataset. The formatting of data suggest sensors are working uniformly, and with fewer errors than 2016. The higher proportion of sensors working and the consistent pool of these should lead to robust long-term data.

5.19 However, a concern would be understanding the degree of error in the data and how these passes relate to numbers of people. As stated, 829,661 passes have been recorded, but we are unable to say how this relates to the number of people. Clearly, this value would be similar, but there is a degree of uncertainty. Some sensors have recorded some possible errors e.g. night time passes at SAMM016, which may or may not be genuine. In addition, sensors may record people, dogs, cyclist, children etc. in different ways such that sensor values are inflated or reduced in comparison to the actual number of people. On site, visual calibration of sensors would be needed to show how these are recording access.

Recommendations

5.20 Recommendations for counters were discussed in the 2016 data report (Panter, 2017). Overall, as 2017 data appears much better than 2016 – with many fewer errors – there appears little need to consider any further recommendations.

5.21 However, some key points from these recommendations, would be to:

- Conduct detailed calibration of sensors to check how people are recorded as passes, and the entering/leaving ratio.
- Record information about these access points using a set recording form which can be used to see factors which may be affecting the long-term patterns.
- Record in greater detail the types of access and types of locations (e.g. type of access point, number of parking spaces in associated

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access point) to allow us to categorise locations and consider changes in access in response to long term changes to access management (e.g. introduction of car parking charges)

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EPR

Visitor Access Patterns on the Thames Basin Heaths SPA

Visitor Questionnaire Survey 2018

Prepared on behalf of

Natural England

Final Report

11 December 2018

18/35-1C

Visitor Access Patterns on the Thames Basin Heaths SPA
Visitor Questionnaire Survey 2018

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EXECUTIVE SUMMARY

Ecological Planning and Research Ltd (EPR) was commissioned by Natural England to carry out an update visitor questionnaire survey across the Thames Basin Heaths Special Protection Area (TBH SPA) from late July to early September 2018. A baseline survey was undertaken in 2005 (Liley et al., 2005) and the first monitoring survey was undertaken in 2012/13 (Fearnley & Liley, 2013).

The TBH SPA is designated as a European site for its Internationally important populations of three ground-nesting bird species: Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea* and Dartford Warbler *Sylvia undata*. These species are known to be vulnerable to the effects of public access, and in particular disturbance.

In 2009, the Thames Basin Heaths Delivery Framework (JSPB, 2009) was published and the principles outlined within it have since been implemented by local authorities, including the provision of Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM), to avoid and mitigate the effects of recreational pressure on the SPA. The 2018 update visitor questionnaire survey, and comparison of the data collected with that obtained in 2012/13 and 2005, therefore provides an opportunity to consider whether implementation of the Delivery Framework has had an effect on visitor numbers and access patterns across the TBH SPA.

The 2018 visitor survey recorded a statistically significant drop in visitor numbers across the 24 access points surveyed in both 2005 and 2018, despite a concurrent 12.9% increase in housing numbers within 5km of the SPA boundary over the same period. A non-significant decrease in the numbers of both visitors and dogs compared to 2012/13 was also recorded, in line with the overall trend.

The 2018 catchment analysis calculated an indicative 5km driving catchment, measured as a 5km linear distance from the SPA boundary, therefore the 5km 'zone of influence' set out within the JSPB's 2009 Delivery Framework and subsequent local authority plans and strategies remains valid.

The 2018 survey recorded a similar visitor profile to that in 2012/13 and 2005. The 'typical' SPA user could be described as a local resident making regular, short visits for the purposes of dog walking. The proportion of dogs observed off the lead has decreased, and visitor route lengths on site have increased compared to the previous surveys.

Factors which could potentially influence visitor numbers and access patterns are discussed. In the absence of clear and/or consistent site-specific factors, it is likely that the implementation of SANG and SAMM measures across the wider SPA since 2005 have had the greatest influence on the survey results. The 2018 visitor profile supports the continued targeting of SANG and SAMM measures at local dog walkers, including commercial dog walkers. Awareness of the TBH SPA designation is very high, which indicates that the SAMM measures and messages implemented by the TBH Partnership are effectively reaching visitors.

Visitor Access Patterns on the Thames Basin Heaths SPA
Visitor Questionnaire Survey 2018

1.   INTRODUCTION

Background

1.1   EPR was commissioned by Natural England to carry out an update visitor questionnaire survey across the Thames Basin Heaths Special Protection Area (TBH SPA) from late July to early September 2018. A baseline survey was undertaken in 2005 (Liley et al., 2005) and the first monitoring survey was undertaken in 2012/13 (Fearnley & Liley, 2013).

1.2   The Thames Basin Heaths covers an area of approximately 8,275 ha and is spread across the counties of Surrey, Hampshire and Berkshire. It is made up of 13 component Sites of Special Scientific Interest (SSSIs) and was designated as an SPA in 2005 for its Internationally important breeding populations of three ground-nesting bird species: Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea* and Dartford Warbler *Sylvia undata*. These species are listed on Annex 1 of European Directive 79/409/EEC (the 'Birds Directive', now codified by Directive 2009/147/EC). The SPA designation was originally created by the Birds Directive and later drawn into the 'Natura 2000' network of protected areas by the Habitats Directive 92/43/EEC, which is transposed into domestic legislation by the Conservation of Habitats and Species Regulations 2017.

1.3   The effects of public access and recreational pressure on populations of Annex 1 heathland birds have been studied in detail. This research has found that disturbance resulting from recreation, particularly walking dogs off leads, has the potential to cause increased nest predation and death of chicks through exposure whilst parents are flushed from the nest, with consequent effects upon breeding success, population size and/or distribution (see Underhill-Day, 2005; Langston et al. 2007; Mallord et al. 2007; Murison et al. 2007).

1.4   Other recreational effects include trampling (causing habitat erosion and accidental destruction of eggs), fragmentation within heathland as a result of the creation of new and widening of existing paths, and soil enrichment through dog defecation and potentially littering, resulting in effects on the composition of habitats.

1.5   Local planning authorities must therefore develop strategies to reconcile the effects of increased recreational demand arising from residential development with the protected status and nature conservation objectives of the TBH SPA, within the wider context of increasing access to the countryside brought about by the promotion of the health and social benefits that this brings. The Government's 25 Year Environment Plan (HM Government, 2018) includes targets and actions aimed at connecting people with the environment to improve health and wellbeing, and Natural England has recently reported that the proportion of adults visiting nature at least weekly has increased from 54% in 2010 to 62% in 2018 (NE, 2018).

1.6   There is also increasing recognition that access to nature is of benefit to nature conservation itself, as it creates a heightened connection between people and the natural environment,

resulting in an increased awareness of, and engagement with, nature conservation issues (RSPB, 2013; NE, 2018).

The Thames Basin Heaths Delivery Framework

1.7 The TBH Joint Strategic Partnership Board (JSPB) was formed in 2007 by the local authorities affected by the TBH SPA, in partnership with a number of other stakeholders such as Natural England. In 2009, the JSPB published the 'Thames Basin Heaths SPA Delivery Framework', a non-statutory document intended to provide guidance to local planning authorities preparing their own plans, policies and strategies to address potential effects on the SPA arising from significant increases in residential development acting in combination across the region.

1.8 The body of evidence underpinning the Delivery Framework was tested through the Examination in Public of the (now revoked) South East Plan. It sets out a three-pronged approach to impact avoidance and mitigation:

- Provision of Suitable Alternative Natural Greenspace (SANG) - to attract people away from the SPA and hence reduce pressure on it;

- Strategic Access Management and Monitoring (SAMM) – on-site management and monitoring of access to the SPA undertaken to mitigate recreational pressure; and

- Habitat Management – sympathetic management of habitats used by the Annex 1 bird species, undertaken by landowners and falling outside of the development control system.

1.9 The Delivery Framework recommends that the principles of the Framework should apply to new residential development located within the 400m to 5km catchment around the SPA, measured as a straight-line from the SPA boundary, and for some larger residential developments, 5km to 7km. It also sets out a presumption against residential development within 400m linear distance of the SPA.

1.10 The 'SAMM Project' was subsequently set up in July 2011 to coordinate and implement the SAMM element of the Framework and is hosted by Natural England on behalf of the JSPB. Developer contributions towards the SAMM Project are collected by local authorities via tariff-based systems established as part of local impact avoidance strategies, and passed on to Natural England to deliver strategic measures on the SPA such as wardening, public engagement and monitoring – including the visitor monitoring which is the subject of this study.

1.11 It is now nine years since the Delivery Framework was published and the principles outlined within it began to be implemented by local authorities. Furthermore, since the previous visitor survey in 2012/13, new housing has been built and new SANGs have opened to the public.

1.12 The 2018 update visitor questionnaire survey and comparison with data collected in 2012/13 and 2005 therefore provides an opportunity to consider whether implementation of the Delivery Framework and associated local strategies has been successful in avoiding significant increases in visitor numbers to, and patterns across, the SPA, in the context of the scale of residential development that has taken place (and will most likely continue at a similar rate). It will also potentially help to target any necessary changes to the overarching strategy and the way in which SANG and SAMM measures are delivered across the region.

1.13 Other factors with the potential to influence visitation, such as the numbers of new houses constructed within a 5km radius of the SPA since 2012/13, the location and type of new SANGs, changes to car parking provision and charges, habitat management, visitor infrastructure and wardening levels have also been considered as part of this study, where possible.

Visitor Survey Objectives

1.14 This visitor questionnaire monitoring survey is one of several monitoring surveys undertaken by the SAMM Project. Others include automated people counter surveys at key SPA access points, car park transect surveys and SANG visitor surveys. Each of these studies complements one another but fulfils a different purpose. The automated people counter and car park transect surveys are primarily aimed at gathering data on visitor numbers, whereas the visitor questionnaire surveys focus on identifying visitor motivations and behaviour patterns on the SPA and SANGs respectively.

1.15 The core objectives of the 2018 visitor questionnaire survey can therefore be summarised as follows:

- Collect and present updated information and data on visitor numbers at, and patterns of access to, 30 surveyed locations across the TBH SPA, including indicative walking and driving catchments;

- Compare the results to the previous monitoring surveys in 2012/13 and 2005, and identify any significant or notable changes;

- Compare the results to those of other monitoring studies where applicable; and

- Consider the potential range of factors that could account for any significant changes in visitor numbers to, and notable changes in patterns of access across, the SPA as a whole, or at individual survey locations, since 2005.

2.   VISITOR SURVEY METHODOLOGY

Background to Methodology

2.1   The visitor survey followed the same methodology as in 2005 and 2012/13 in order to ensure the collection of robust and fully comparable data year on year. This methodology has also been used in numerous other visitor surveys at heathland and coastal sites (e.g. Liley & Clarke 2006, EPR Ltd 2012, Southgate & Colebourn 2016).

2.2   As in previous years, the survey took the form of a standard exit poll questionnaire, which involved 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. Tally counts were also kept of the total number of visitors and dogs entering/exiting through each access point. In most cases both tasks were completed by a single surveyor, although at four particularly busy access points an additional surveyor was present to record the tally counts.

2.3   The methodology set out in this report, including the content and format of the questionnaire, was developed in consultation with Ann Conquest of Natural England, Project Manager of the Thames Basin Heaths Partnership, and agreed with the SAMM Project.

2.4   The visitor survey fieldwork was coordinated and undertaken by Marketing Means (UK) Ltd, with support and direction from EPR. Marketing Means are an independent market research company with extensive experience of organising and conducting visitor surveys on designated sites.

Access Points

2.5   In total, surveys were carried out at 30 site access points (APs) across the SPA (shown on **Map 1**). The same 30 access points were surveyed in 2012/13, and 24 of them were surveyed in 2005. The APs are listed in **Table A4.1, Appendix 4**.

Survey Effort and Timing

2.6   In accordance with the methodology used in 2005 and 2012/13, each access point was surveyed for 16 hours in total (480 survey hours across the whole SPA). Interviews were carried out during the following two-hour sessions, with each of the timeslots covered on both a weekday and a weekend day:

- 07:00 to 09:00;
- 10:00 to 12:00;
- 13:00 to 15:00; and
- 17:00 to 19:00.

2.7   The even spread of morning/afternoon and weekday/weekend survey sessions was designed to ensure the capture of representative data regarding visitation levels and patterns of access, and also to reduce the possibility of factors such as unusual weather or local events introducing bias into the results.

2.8   Surveys were timed to coincide with the nesting bird season, and the school holiday period from late July to early September. When planning the survey schedule, research was undertaken to identify local events that could potentially affect typical visitor activity, and surveys were scheduled to avoid these events.

2.9   Two of the access points were surveyed during term time (AP19 on 14/09/18 and AP12 on 16/09/18). This was due to a scheduling error in one case, and due to the presence of travellers on site in the other, necessitating the postponement of the survey for safety reasons.

Tally Counts

2.10   Tally counts were made of the numbers of adults, children and accompanying dogs entering and exiting through each access point during each timeslot. This information was collected to allow analysis of overall footfall at each access point, and comparison with previous surveys. The maximum number of cars parked at any one time and the total number of commercial dog walking vehicles was also recorded. The Tally Sheet is shown in **Appendix 1**.

2.11   Six access points were particularly busy during the 2012 survey, such that a single surveyor was unable to complete both visitor interviews and tally counts. This necessitated the completion of repeat counts in 2013. Data from the 2012/2013 survey was therefore reviewed, and for the 2018 survey additional surveyors were deployed at access points 3 (The Lookout), 21 (Whitmoor Common), 23 and 24 (both Horsell Common) to cover the completion of tally counts.

Interviews

2.12   Surveyors interviewed visitors as they exited through their access point in order to obtain information about their visit. 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. The full questionnaire is provided at **Appendix 2**. Topics included:

- Reason for their visit;
- Where they had travelled from;
- Method of travel;
- Why they had chosen this site over others;
- How often they usually visit;
- The route they had taken during their visit;
- Whether their dogs left the designated paths (if applicable);
- Whether they visit other open spaces in the area;
- Reasons for visiting other open spaces; and
- Awareness of the SPA designation and Thames Basin Heaths Partnership.

2.13   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.

2.14 Metadata recorded for each interview included the group size and composition, time of day, weather conditions, the number of dogs in the group and whether these were on or off the lead. Surveyors were also provided with a sheet on which to record general observations.

Changes to 2018 Questionnaire

2.15 The 2005 survey included 12 questions and the 2012/13 survey 21. It was acknowledged in the 2012/13 report (Fearnley & Liley, 2013) that "this longer questionnaire meant that at busy sites it was very difficult to interview visitors whilst keeping an accurate tally of visitors and dogs entering and leaving the SPA (…) the length of the revised questionnaire also meant fewer interviews could be undertaken in survey sessions at busy sites as each interview took longer."

2.16 In response to these limitations, the number of questions was reduced to 16 for the 2018 survey in order to keep the questionnaire as brief as possible while capturing key information, thereby maximising participation. Some of the multiple choice options were also reduced or rationalised.

2.17 The following questions from the 2012/13 survey were omitted:

- *Do you tend to visit this site at a certain time of day?* – this information potentially duplicates and/or confuses analysis of the number of interviews completed during, and tally count data for, each timeslot;

- *Do you tend to visit this area more at a particular time of year?* – a greater sample of seasonal information can be gathered from ongoing car park and automated people counter surveys;

- *Where did you park?* – covered by car park transect surveys;

- *How do you usually travel [to named alternative site]?* – covered by other questions;

- *Did you enter the heath from here or another access point?* – covered by route map;

- *Is/was your route today reflective of your usual route when you visit here?* – detail considered unnecessary, as survey obtains a representative sample of routes taken around sites;

- *Did your visit today involve walking off the paths?* – question changed to ask about whether dogs left the paths;

- *What (if anything) influenced your choice of route here today?* – overlaps with question about reason for choosing this site; and

- *Do you have any other comments about this area?* – open ended questions are difficult to analyse, and similar information can be inferred from multiple choice questions.

2.18 Questions added to the 2018 survey were:

- *Can you tell me the approximate age of your home?* – to capture the proportion of visits made by residents of housing built since the previous survey in 2012/13;

- *Did you use a GPS tracking app today (e.g. Strava) and would you be prepared to share your data?* – to gauge levels of use, willingness to share data and to obtain additional route information;

- *Did your dog leave the marked footpaths or tracks during your visit today?* – instead of asking whether the visitors themselves left the paths;

- *Are you aware that the site is a protected conservation site?* – to both gauge and raise awareness and inform future management; and

- *Have you heard of the TBH Partnership and its work?* – as above.

Data Analysis

Overview

2.19   All questionnaire responses were multiple-choice (with the exception of 'Other' categories where interviewers typed out the response); these were coded by Marketing Means and passed to EPR as a Microsoft Excel spreadsheet. The tally count forms were typed up by Marketing Means and also provided to EPR as an Excel spreadsheet.

2.20   ArcGIS 10.6 software (ESRI UK) was used to aid analysis and presentation of the data collected during the surveys. Analysis of visitor origins and travel distances (linear distance from point of origin to access point) used the 2018 Royal Mail Postcode Dataset for the UK (BPH, 2018) and Pythagorean theorem in Microsoft Excel.

2.21   Only full and accurate postcodes were mapped. Consideration was given to mapping the central point of partial postcodes (e.g. GU1 ___ or GU1 1__). However the spatial areas covered by these district and sector postcodes vary greatly and would have introduced inaccuracies and bias into the analysis.

2.22   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/m^2) and thus the areas subject to the greatest density of recreational pressure.

2.23   Excel was used for the data analysis. Prior to analysis, data was 'cleaned' – for example, removing or adding gaps in postcodes so they could be matched in the Postcode Dataset, and assigning answers listed as 'Other' to the appropriate multiple choice option where possible (e.g. 'Other – birdwatching' would be added to 'wildlife/nature watching' for Q7 and Q10).

Statistics

2.24   Statistical analyses were undertaken using Microsoft Excel and Minitab 18. Analyses included both descriptive statistics such as minimum, maximum and average values (all average values represent the arithmetic mean). All percentages and figures were rounded to one decimal place.

2.25   Tests for correlation and significant difference were also undertaken for key parameters; the tests used are described in the relevant paragraphs in **Section 3**. For tests of significant difference between variables, the probability threshold was set at $P=0.05$; where P-values were less than 0.05 this allowed rejection of the null hypothesis of no significant difference between the variables being tested.

Other Monitoring Data

2.26 Natural England provided data from ongoing automated people counter and car park transect surveys across the wider SPA, for context and to supplement the analysis of the visitor questionnaire data. This data is summarised and discussed at the end of the **Results** section.

Limitations

2.27 The following limitations are common to all visitor surveys of this nature:

- 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;

- The 'routes walked' maps vary in terms of accuracy;

- Certain visitor groups are more difficult to intercept for interview (e.g. joggers, cyclists, horse-riders) and it is likely that these groups are under-represented in the results; and

- The tally count method invariably under-records footfall, as surveyors will miss some entries/exits while they are interviewing other groups, and some groups may use alternative access points. As such, all entry/exit figures given in the Results section are broad estimates only, for comparison with previous/future surveys and studies at other sites using the same methodology.

2.28 The limitations described above are also likely to have applied to the 2012/13 and 2005 visitor surveys. Within the context of the large datasets collected for this and previous surveys, they are not considered to have a significant bearing on the overall results or analysis undertaken.

3.   VISITOR SURVEY RESULTS

Introduction

3.1   This Section describes the results of the 2018 questionnaire survey. Results are presented for all 30 access points combined, unless otherwise stated. Results are broken down in detail where appropriate, for example by access point or user group, and graphs, tables and maps are used to facilitate presentation of the results.

3.2   Comparisons are made to the 2012/2013 (and where possible, 2005) surveys throughout, with a summary comparison table presented in **Appendix 3**. Where appropriate, large data tables are provided in **Appendix 4** and summarised in the relevant sub-sections.

Previous Surveys - Summary

3.3   Visitor surveys were undertaken at 26 access points in August 2005 (Liley et al., 2005). In total, 1,144 groups accompanied by 1,271 dogs were interviewed over 416 hours of survey. Of these groups, 83% had arrived by car and 59% said the main reason for their visit was dog walking. Overall, 70% of groups lived within 5km of their access point.

3.4   The 2012/13 survey (Fearnley & Liley, 2013) involved 30 access points (24 of the original 2005 locations plus six new ones), with interviews conducted in two separate blocks in May/June and August 2012. Repeat tally counts were undertaken at five locations in August 2013, and this data replaced the August 2012 tally data for those access points.

3.5   In total, 2,483 groups accompanied by 2,918 dogs were interviewed over 948 hours of survey in 2012/13. Of these groups, 75% arrived by car and 65% said that the main reason for their visit was dog walking. 83% of groups said they visited at least once a week. Overall, 94% of groups categorised as local residents lived within 5km of the SPA, and 83% within 5km of the access point where they were interviewed.

3.6   The total number of people counted entering SPA during the 2012/13 tally counts was 10% higher than in 2005, but analysis found that this difference was not statistically significant.

Weather

3.7   The majority of the 2018 survey sessions were completed in favourable weather conditions: the weather was 'cool', 'mild' or 'warm' for 84.6% of sessions, and 68.9% of sessions experienced no rain at all. 8.3% of sessions were conducted in heavy rain and 11.8% in 'hot' conditions.

3.8   This is a representative mix of weather for the time of year, however it is noted that the summer of 2018 was declared as the 'joint hottest on record' by the Met Office (Met Office, 2018), and the general public were advised to avoid walking dogs during the hottest part of the day.

Tally Count Data

Entry/exits

3.9 Tally count data collected at each access point is presented in **Table A4.2, Appendix 4.** In total, 3,001 people (adults and children) were recorded entering the SPA at the 30 access points across the 480 hours of survey, and 2,249 people were recorded exiting.

3.10 It is important to note at this juncture that the tally count data represents visitor footfall at a fixed number of access points during the peak summer period, and should not be extrapolated to estimate visitor numbers or analyse trends across the whole SPA. Separate automated people counter and car park transect surveys (discussed under 'Other Monitoring Data' below) provide more accurate data in this respect. Rather, the tally count data can be used for comparison between the 30 access points surveyed, and between monitoring survey years.

3.11 Standardised by survey hours (because the survey effort was different in the two years, raw counts cannot be used), the rate of entries and exits per hour is lower than in 2012/13, as shown in **Table 3.1**.

Table 3.1: Comparison of tally counts in 2012/13 and 2018.

Year	Survey Hours	Total Entries (adults + children)	Entries per hour	Total Exits (adults + children)	Exits per hour
2012/13	948	6,409	6.8	5,448	5.7
2018	480	3,001	6.3	2,249	4.7
% change 2012/13 - 2018			**-7.4%**		**-17.5%**

3.12 Statistical analysis found that across all 30 access points, for both entries and exits, the difference in hourly footfall between 2012/13 and 2018 was **not statistically significant**, i.e. the variation between the two years could be attributed to random chance (*Wilcoxon's signed rank: entries n=30, W stat=213, p=0.696; exits n=30, W stat=175, p=0.12*).

3.13 Repeating the analysis using only the 24 original access points did not affect the result; i.e. the decrease in footfall was not statistically significant (*Wilcoxon's signed rank: entries n=24, W stat=132.5, p=0.627; exits n=24, W stat=97.5, p=0.137*).

3.14 When comparing the 24 access points surveyed in both 2005 and 2018, the decrease in footfall is noticeably greater (**Table 3.2**).

Table 3.2: Comparison of tally counts in 2005 and 2018.

Year	Survey Hours*	Total Entries (adults + children)	Entries per hour	Total Exits (adults + children)	Exits per hour
2005	384	3,295	**8.6**	2,823	**7.4**
2018	384	2,673	**7.0**	1,968	**5.1**
% change 2005 – 2018			**-18.9%**		**-30.3%**

* Includes only the 24 access points surveyed in both years

3.15 Statistical analysis found that across the 24 access points surveyed in both years, for both entries and exits, the difference in hourly footfall in 2005 and 2018 was **statistically significant**

at the 95% confidence interval (where *p<0.05*; *Wilcoxon's signed rank: entries n=24, W stat=71.5, p=0.026; exits n=24, W stat=69, p=0.021*).

Comparison of Access Points

3.16   As shown in **Table A4.2** and displayed on **Map 2a,** access points (APs) 3 (The Lookout) and 24 (Shore's Road) had by far the highest number of people entering during the 2018 survey period, and these sites also had the highest number of children. APs 13 (Staple Hill), 27 (Chapel Lane), 28 (Sandy Hill Road) and 31 (Layby south of A30) recorded the lowest numbers of visitors. The exit data is similar (**Map 2b**), although AP4 (Top of Bracknell Road) had the second highest number of children exiting the site, suggesting that this site is also popular with families.

3.17   In order to compare the relative popularity of different APs between survey years, each AP was ranked in terms of total footfall in each year, using the average of the entry and exit totals. The results are displayed on **Figure 3.1**. This shows that APs 3 (The Lookout), 21 (Salt Box Road), 23 (Chobham Road) and 24 (Shore's Road) were the busiest locations in all three survey years, while APs 2 (Nightingale Road) and 17 (B3011 opposite Arrow Lane) were consistently quiet. APs 27 (Chapel Road), 28 (Sandy Hill Road) and 31 (Layby south of A30) were amongst the quietest sites in both 2012/13 and 2018.
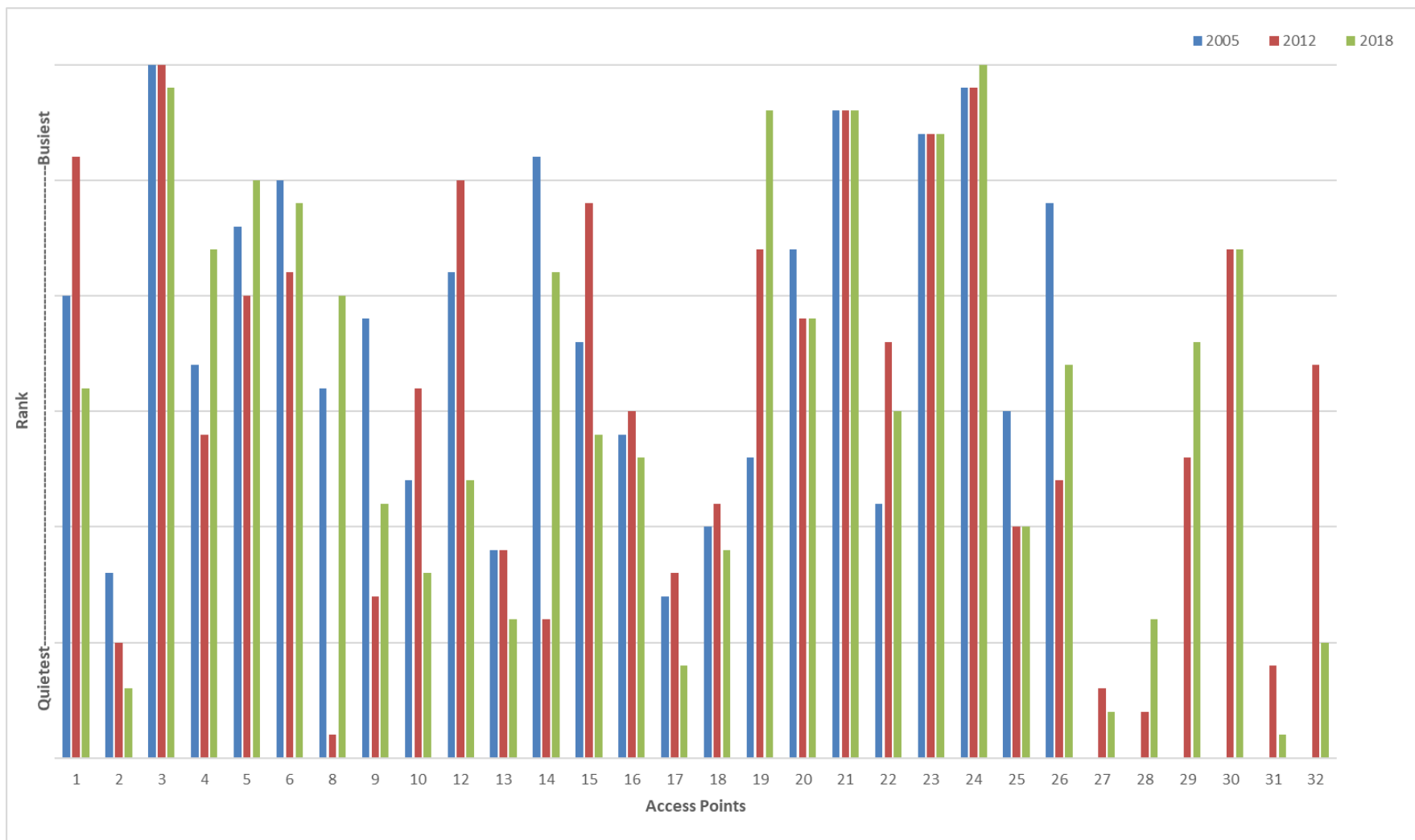
Figure 3.1: Relative footfall - busiest and quietest access points 2005-2018, ranked.

Percentage Changes in Footfall

3.18 Dividing the total footfall counts at each access point by the number of survey hours completed yields an hourly footfall rate, from which the percentage change between survey years can be calculated. **Maps 3a** and **3b** show relative changes (both upwards and downwards) in footfall between 2012/13 and 2018, and 2005 and 2018 respectively. The average of the entry and exit percentages was used to assign the size categories shown on the maps, unless the figures were inconsistent with one another (e.g. an increase in entries but decrease in exits), in which case this is denoted as 'unclear'.

3.19 **Tables 3.3** and **3.4** pick out the most notable changes, i.e. those +/- 50% or greater, with full data tables provided in **Appendix 4**.

Table 3.3: Notable changes in 2018 hourly footfall compared to 2012/13.

AP	AP Name	% change in footfall (average of entries and exits)	Trend
1	Mytchett Place Road	-59.3%	Decrease
12	Chobham Common	-64.1%	Decrease
15	Sandpit Hill	-52.4%	Decrease
23	Chobham Road	-54.6%	Decrease
4	Top of Bracknell Road	+66.8%	Increase
8	North Entrance to Warren Heath	+383.3%	Increase
14	Lightwater Country Park	+432.7%	Increase
28	Sandy Hill Road	+78.3%	Increase
29	Car Park east of Foresters Arms	+54.9%	Increase

Table 3.4: Notable changes in 2018 hourly footfall compared to 2005.

AP	AP Name	% change in footfall (average of entries and exits)	Trend
12	Chobham Common	-54.2%	Decrease
26	Currie's Clump	-51.4%	Decrease
19	South Road	+70.8%	Increase

Dog Ownership

3.20 A total of 1,847 dogs were recorded entering the 30 access points during the survey period, and 1,519 exiting. This equates to 0.6 and 0.7 dogs per person respectively. This is similar to 2012/13, which recorded 0.7 dogs per person (based on reported entry data).

3.21 AP24 (Shore's Road) had by far the highest number of dogs (366 compared to 169 at AP21 (Salt Box Road) and 100 at AP23 (Chobham Road), the next highest totals). The lowest number of dogs were recorded at APs 2 (Nightingale Road), 13 (Staple Hill) and 31 (Layby south of A30).

3.22 As shown in **Table 3.5**, the numbers of dogs recorded entering and exiting the SPA is also lower than in 2012/13, in line with the decrease in visitor footfall.

Table 3.5: Comparison of tally counts in 2012/13 and 2018 (dogs).

Year	Survey Hours	Total Entries (dogs)	Entries per hour	Total Exits (dogs)	Exits per hour
2005	Not counted				
2012/13	948	4,314	4.6	3,821	4.0
2018	480	1,847	3.8	1,519	3.2
% change 2012/13 - 2018			**-17.4%**		**-20%**

3.23 Statistical analysis found that across all 30 survey locations, for both entries and exits, the difference in hourly counts of dogs between 2012/13 and 2018 was **not statistically significant** (*Wilcoxon's signed rank, entries: n=30, W stat=166.5, p=<0.178, exits: n=30, W stat=142.5, p=0.066*).

3.24 This test could not be repeated for 2005 vs 2018, as tally counts of dogs were not undertaken in 2005.

3.25 Commercial dog walking vehicles were recorded at 18 of the access points, compared to 15 in 2012/13. The highest total (n=37) was recorded at AP6 Bourley Road, followed by AP21 Salt Box Road (n=11) and AP26 Currie's Clump (n=10). Overall, 113 commercial dog walking vehicles were recorded across the 30 access points over 480 hours of survey, compared to 45 vehicles over 948 hours in 2012/13, which is a notable increase.

Time of Day

3.26 Across all 30 APs, entries and exits were spread across all four timeslots, with a slightly higher proportion of visitors entering and leaving between 10 am and 12 noon. This is a similar pattern to that recorded in the 2012/13 tally counts (**Figure 3.2**).
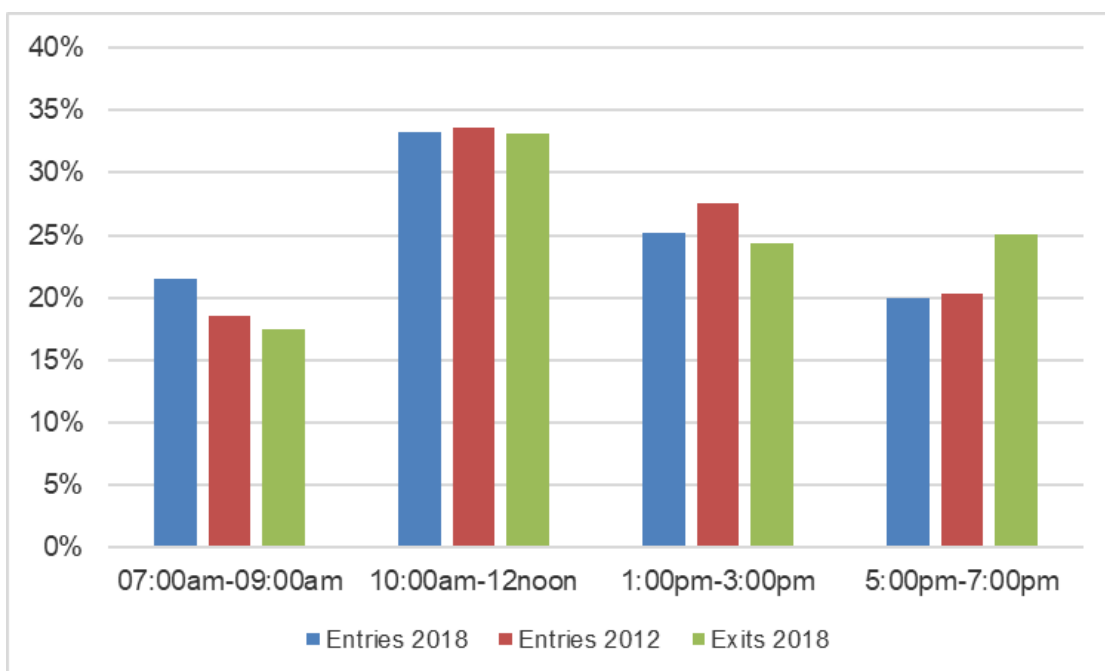
Figure 3.2: Entries and exits by timeslot (adults + children).

3.27   Overall, footfall was slightly higher at weekends (55.9% of entries and 52.5% of exits, counting both adults and children together). This is slightly lower than in 2012/13 (58.5% at weekends overall).
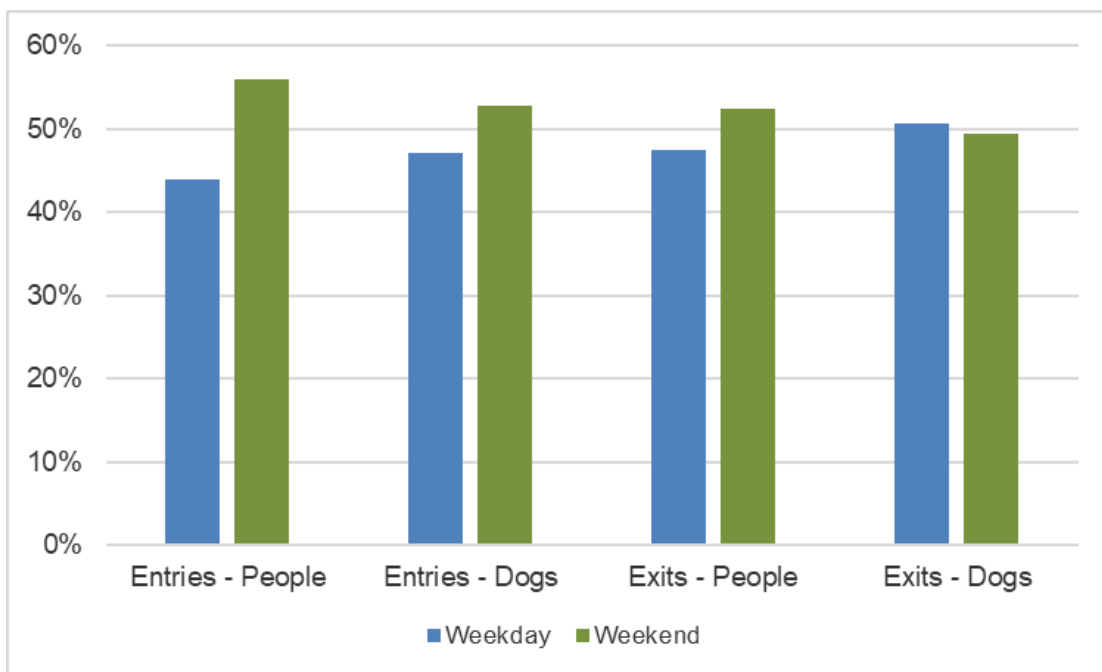
Figure 3.3: Entries and exits by weekday or weekend (people = adults + children).

Questionnaire Data: All Responses

Total Interviews

3.28   A total of 982 groups comprising 1,553 people and 1,174 dogs were interviewed across the 30 access points. Of the 2,249 people recorded leaving the site, 329 turned down the interview request, a refusal rate of 14.2% of visitors.

3.29   Of those groups that declined to be interviewed, some had already taken the survey on a previous day, while others would have exited the sites outside of the survey sessions or at access points that were not surveyed. Some groups could not be intercepted because they were moving too quickly (e.g. cyclists), or because interviewers were already engaged in an interview.

Interviews by Access Point

3.30   As shown in **Table 3.6**, the most interviews (i.e. highest participation rates) were completed at APs 24 (Shore's Road), 3 (The Lookout) and 23 (Chobham Road). The fewest (i.e. lowest participation rates) were completed at APs 10 (Car Park off A30), 31 (Layby south of A30), and 32 (Layby on Old Guildford Road).

Table 3.6: Interviews completed by access point.

AP	Component SSSI	Count	% of total interviews
24	Horsell Common	93	9.5%
3	Broadmoor to Bagshot Woods & Heaths	82	8.4%
23	Horsell Common	79	8.0%
21	Whitmoor Common	51	5.2%
1	Ash to Brookwood Heaths	49	5.0%
5	Broadmoor to Bagshot Woods & Heaths	40	4.1%
20	Sandhurst to Owlsmoor Bogs & Heaths	38	3.9%
6	Bourley & Long Valley	35	3.6%
4	Broadmoor to Bagshot Woods & Heaths	35	3.6%
19	Sandhurst to Owlsmoor Bogs & Heaths	33	3.4%
8	Bramshill	32	3.3%
26	Ockham & Wisley Commons	32	3.3%
14	Colony Bog & Bagshot Heaths	30	3.1%
9	Castle Bottom to Yateley & Hawley Common	29	3.0%
30	Broadmoor to Bagshot Woods & Heaths	29	3.0%
18	Hazeley Heath	28	2.9%
25	Ockham & Wisley Commons	27	2.7%
16	Colony Bog & Bagshot Heaths	26	2.6%
15	Colony Bog & Bagshot Heaths	26	2.6%
28	Bourley & Long Valley	26	2.6%
12	Chobham Common	23	2.3%
29	Bourley & Long Valley	22	2.2%
22	Whitmoor Common	20	2.0%
27	Ash to Brookwood Heaths	17	1.7%
17	Hazeley Heath	16	1.6%
13	Chobham Common	15	1.5%
2	Ash to Brookwood Heaths	15	1.5%
32	Ash to Brookwood Heaths	14	1.4%
10	Castle Bottom to Yateley & Hawley Common	14	1.4%
31	Castle Bottom to Yateley & Hawley Common	6	0.6%
Total		**982**	

Visitor Profile

3.31   The size of the interviewed groups ranged from 1 to 10, with an average of 1.6 people per group (1.5 in 2012/13). The majority of groups consisted of one person (62.9%) (**Table 3.7**).

Table 3.7: Sizes of groups interviewed.

Group Size	Count	%
1	618	62.9%
2	247	25.2%
3	62	6.3%
4	37	3.8%
5	12	1.2%
6	2	0.2%
7	1	0.1%
8	1	0.1%
9	0	0%
10	2	0.2%
Total	**982**	

3.32 Of the 1,553 people interviewed as part of the 982 groups, 11.8% were under 18, 24.4% were between 18 and 40, 44.6% between 41 to 65 and 19.2% over 65 (**Table 3.8**). Compared to 2012/13, this represents a decrease in the 41-65 category and a slight increase in all other categories.

Table 3.8: Age composition of groups interviewed.

Age Category	Count	% in 2018	% in 2012
Under 18	184	11.8%	10%
18 to 40	379	24.4%	22%
41 to 65	692	44.6%	53%
Over 65	298	19.2%	15%
Total	**1,553**		

3.33 Over three-quarters (76.3%) of the groups interviewed had at least one dog with them (**Table 3.9**), compared to 80% in 2012/13 and 72% in 2005. The 982 groups were accompanied by 1,174 dogs, an average of 1.2 dogs per group, or 1.6 per dog-owning group. This is similar to 2012/13 (1.2 and 1.5 respectively).

Table 3.9: Number of dogs accompanying interviewed groups.

Number of Dogs	Number of Groups	%	Total Dogs
0	233	23.7%	0
1	486	49.5%	486
2	180	18%	360
3	42	4.3%	126
4	25	2.5%	100
5	7	0.7%	35
6	6	0.6%	36
10	2	0.2%	20
11	1	0.1%	11
Total	**982**		**1,174**

3.34 Almost all groups (96.4%) said they were visiting from home, rising to 97% when including those who were on their way to or from work. 3% of groups were on holiday or visiting friends (**Table 3.10**). This is a similar result to in 2012/13, when 98% of groups were classified as 'local' visitors.

Table 3.10: Which of the following best describes your situation today?

Situation	Count	%
Visiting from home	947	96.4%
Visiting, staying with friends/family	15	1.5%
On holiday, stating away from home	14	1.4%
On way to/from work	6	0.6%
Total	**982**	

3.35 Unless otherwise stated, the analysis that follows **filters out** those 29 groups who were on holiday or visiting friends, as it is the patterns and behaviour of local visitors (953 groups) that are the main focus of this study. This also allows for direct comparison with the 2012/13 data, which split the analysis in this way. For clarity, these groups are referred to as 'local groups' or 'local visitors'.

Questionnaire Data: 'Local Groups' Subset

Dogs on/off Leads

3.36 Compared to all groups, a slightly higher proportion of local visitors had at least one dog with them (77% compared to 76.3%), and the same proportion of those groups had at least one dog off the lead (54.6%). This is lower than in 2012/13, which reported that 81% of local groups had at least one dog with them, of which 67% had at least one dog off the lead (this was not recorded in 2005).

Dogs on/off Paths

3.37 Of the 738 local groups with dogs, almost two-thirds (62.6%) said their dogs left the paths. 34.8% said they did not, and 2.6% said they didn't know. This question was not asked in 2012/13 or 2005.

3.38   **Table A4.7, Appendix 4** breaks down the proportions of dogs off the lead and dogs that left the paths by access point. In summary, this analysis found that:

- APs 10 (Car Park off A30), 15 (Sandpit Hill), 24 (Shore's Road), 25 (Wren's Nest) and 32 (Layby on Old Guildford Road) had the **highest** proportion of dogs off the lead (over 80%);

- APs 17 (B3011 Opposite Arrow Lane), 21 (Salt Box Road), 22 (Burdenshott Road), 30 (Car Park off B3348/A3095 Roundabout) and 32 had the **highest** proportion of dogs off the paths (over 90%);

- APs 3 (The Lookout), 8 (North Entrance to Warren Heath), 12 (Chobham Common) and 17 had the **lowest** proportion of dogs off the lead (below 30%); and

- APs 2 (Nightingale Road), 9 (Cricket Hill Lane), 14 (Lightwater Country Park), 16 (Queens Road) and 18 (Springfield Avenue) had the **lowest** proportion of dogs off the paths (below 30%).

3.39   With the exception of AP32, there appears to be little consistency between percentages of dogs off the lead and dogs off the paths. Statistical analysis found that there is no statistically significant correlation between the two behaviours (*Spearman's rank: n=30, Spearman rho= -0.128, p=0.247*). The relationship does, however, shows a weak negative trend, which means that dogs off the lead were slightly less likely to have left the paths.

Main Reason for Visit

3.40   Interviewees were asked to name the main reason for their visit (**Table 3.11**). Dog walking was the most commonly cited by local groups (74.6%), followed by walking (9.8%), cycling/mountain biking (6.4%), jogging/exercise (4%), and commercial dog walking (2.3%). 28 groups (2.9%) gave other reasons, such as birdwatching, fishing, horse-riding, model plane flying, and visiting the café.

Table 3.11: What is the main activity you are undertaking today?

Activity	Count	%
Dog Walking	711	74.6%
Walking	93	9.8%
Cycling/mountain biking	61	6.4%
Jogging/exercise	38	4.0%
Other	28	2.9%
Commercial Dog Walking	22	2.3%
Total	**953**	

3.41   In 2012/13 and 2005, dog walking was also the most popular activity (66% and 59%) followed by walking (21% and 32%). However, the percentages are not directly comparable, as in previous survey years groups could choose more than one answer.

Mode of Transport

3.42   The majority of local groups (80%) had travelled to their access point by car or van. 18.9% arrived on foot and 1.2% by bicycle. A slightly higher proportion of groups travelled by vehicle compared to in 2012/13 (**Table 3.12**).

Table 3.12: How did you travel here?

Means of Travel	Count	% 2018	% 2012/13
Car/van	762	80%	75%
On foot	180	18.9%	22%
Bicycle	11	1.2%	2%
Total	**982**		

Visitor Origins and Travel Distances

3.43   In total, 794 full and accurate home postcodes were provided by the 953 local groups (83%), displayed on **Map 4**. This is notably lower than in 2012/13 when the postcode capture rate was 96%, but higher than in 2005 (63%).

3.44   It is possible that the drop in the number of groups willing to provide a full or accurate postcode is related to heightened media coverage of changes to the law relating to data protection.

3.45   In total, 729 (91.8%) of postcodes provided by local groups are located within 5km of the SPA boundary and 166 (20.9%) within 400m. This is a slight drop compared to 2012/13 (94% and 25% respectively). This is a different type of analysis to the catchment analysis detailed below, which is based on distance travelled from home postcode to the access point at which the visitor was interviewed.

Postcodes by District

3.46   **Table 3.13** shows the numbers and percentages of postcodes per district and county, compared to 2012/13. In both years, the majority of local visitors originated from Surrey, in particular the Surrey Heath and Woking districts.

Table 3.13: Postcodes by district/county.

District	County	No. (%) of postcodes 2018	No. (%) of postcodes 2012/13
Surrey Heath	Surrey	166 (20.9%)	540 (23%)
Woking	Surrey	146 (18.4%)	355 (15%)
Guildford	Surrey	95 (12%)	314 (14%)
Hart	Hampshire	94 (11.8%)	341 (15%)
Bracknell Forest	Berkshire	83 (10.4%)	270 (12%)
Rushmoor	Hampshire	55 (6.9%)	121 (5%)
Other	Other	45 (5.7%)	72 (3%)
Runnymede	Surrey	37 (4.7%)	76 (3%)
Wokingham	Berkshire	33 (4.2%)	112 (5%)
Waverley	Surrey	24 (3%)	70 (3%)
Elmbridge	Surrey	13 (1.6%)	19 (1%)
Windsor & Maidenhead	Berkshire	3 (0.4%)	26 (1%)

Distances Travelled

3.47   The 794 'local group' postcodes were spatially analysed to generate minimum, maximum and average linear distances from home postcode to access point, broken down further by user group, as shown in **Table 3.14**. This shows that those groups with dogs lived considerably closer to their access point on average than those without a dog.

Table 3.14: Distances travelled to access point (straight-line distances).

	Count	Minimum	Maximum	Average	Standard Error
All	794	64 m	146 km	5.1 km	+/- 391 m
On foot	150	64 m	11 km	1 km	+/- 127 m
Car/van	636	210 m	146 km	6.2 km	+/- 478 m
Group with dogs	620	64 m	102 km	3.5 km	+/- 255 m
Groups without dogs	174	84 m	146 km	10.4 km	+/- 1.5 km

3.48   Average travel distances are higher than in 2012/13, which found that local visitors arriving on foot had travelled 0.8 km on average, and those arriving by car/van 4.5 km.

3.49   In 2018, ten groups had travelled over 50km to their access point. Of these, six were visiting AP3 (The Lookout) for the purpose of cycling/mountain biking.

Catchment Analysis

3.50   The cumulative frequency of distance travelled to reach a site can be used to estimate the walking and driving catchments for a site. For example, the 75th percentile figure from a cumulative frequency distribution curve shows the distance from within which 75% of visitors have travelled to reach a site; this therefore gives a more representative understanding of predominant travel patterns, because it excludes the upper travel distances which would otherwise skew the average.

3.51   **Figure 3.4** displays these cumulative frequency distribution curves for local visitors travelling on foot and by car/vehicle respectively.
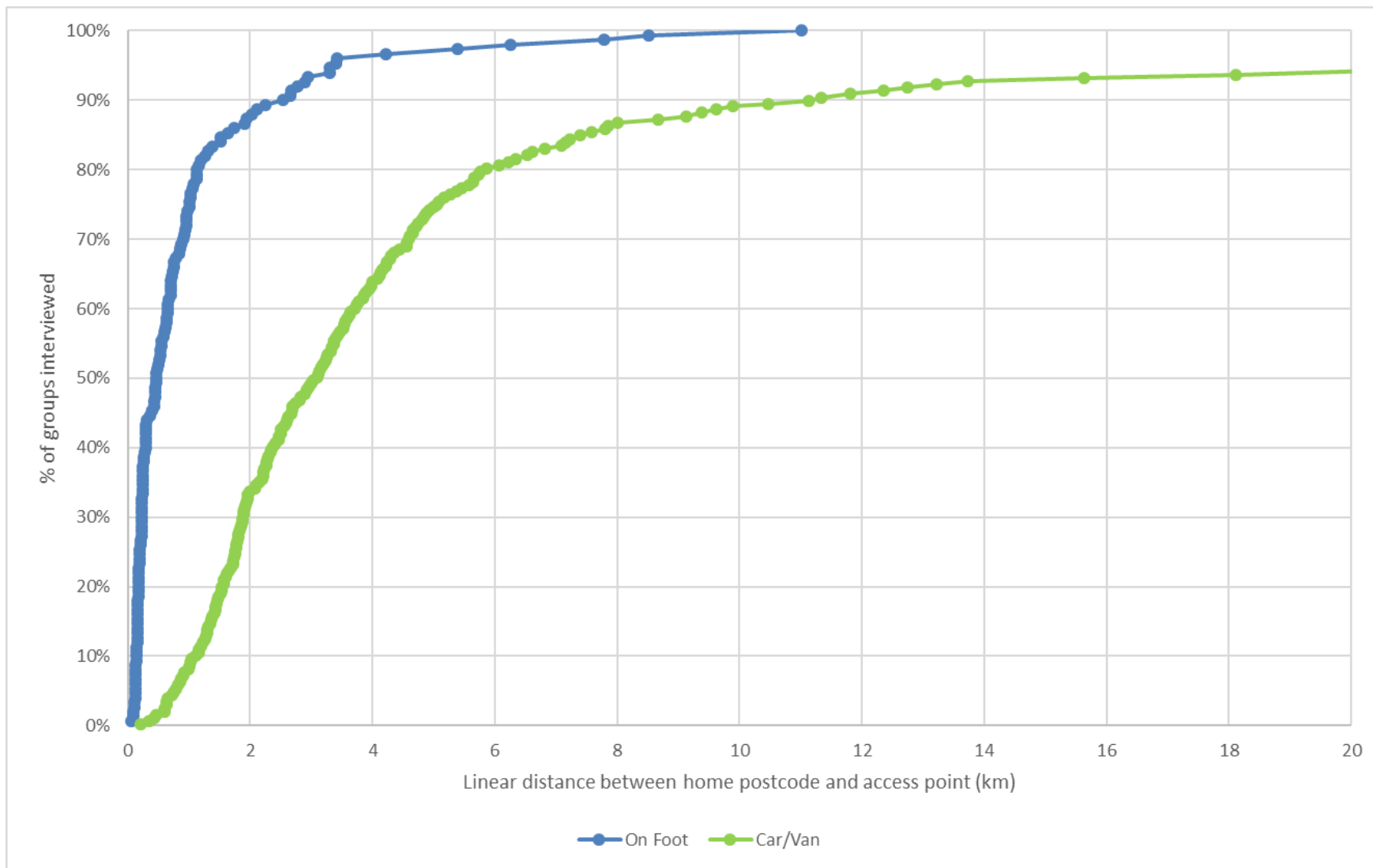
Figure 3.4: Cumulative frequency distribution: - linear distance between access point and home postcode (figure truncated at 20km).

3.52   Other studies have used either 70% or 75% to characterise visitor catchments. For the purposes of this study, 75% is used for direct comparison with the 2012/13 data.

3.53   As shown in **Table 3.15,** 75% of all local groups who arrived on foot had travelled from within 1 km of the SPA, and 75% of those who had travelled by vehicle from within 5 km (**Map 5**). These figures provide up to date indicative walking and driving catchments for the SPA as a whole, and are slightly larger than those reported in 2012/13.

Table 3.15: Catchment analysis.

	75th percentile – 2018	75th percentile – 2012/13
All	4.6 km	Not reported
On foot	1.0 km	0.9 km
Car/van	5.0 km	4.6 km

3.54   In 2005, this data was reported in terms of the percentage of visitors travelling from within defined distance bands (Liley et al., 2005). It was reported that 70% of car/van visitors had travelled from within 5km of the SPA, therefore the 75th percentile for this group will have been over 5km. This data was based on all visitors, rather than the 'local groups' subset and as such is not directly comparable to 2012/13 or 2018.

3.55   The 2018 catchment data is broken down further below for each Access Point in **Table A4.8 (Appendix 4)**, with postcode locations shown on **Maps 4a-4n.** This shows that:

Driving Catchments:

- In both 2012/13 and 2018, AP3 (The Lookout) had by far the largest driving catchment, at 15.9 km and 30.9 km respectively;

- Other APs with large driving catchments in both years included AP26 (Currie's Clump) at 13.2 km and 16.2 km, AP13 (Staple Hill) at 7.8 km and 10.8 km, and AP8 (North Entrance to Warren Heath) at 7.8 km and 8.8km; and

- AP20 (Crowthorne Road) had the smallest driving catchment in both years (1.7 km in 2012/13 and 1.9 km in 2018). AP4 (Bracknell Road) and AP19 (South Road) also had driving catchments under 2km in 2018.

Walking Catchments:

- The largest walking catchments in 2018 were recorded at AP16 (Cowshot Common) at 3.3km, and AP14 (Lightwater Country Park) at 1.1km;

- In 2012/13 the largest walking catchments were recorded at AP31 (South of A30) at 3km, and AP27 (Chapel Lane) at 1.2km; and

- AP18 (Hazeley Heath) had the smallest walking catchment in both years (0.2km in 2018, 0.3km in 2012/13).

3.56   As reported above, 91.8% of postcodes provided by local groups are located within 5km of the SPA boundary. However, analysis of the cumulative frequency data shows that only 79% of local visitors had travelled from within 5km of their access point – the rest had travelled further. This suggests that some visitors, despite living within 5km of the SPA, were prepared to travel

further than this to reach their preferred access point, which may not be the closest to their home.

Age of Home

3.57   The majority of the local groups interviewed said their home was over 10 years old (87.5%), followed by 6 to 10 years old (7.5%). Only 3% of local visitors said their homes were 5 years old or less (**Table 3.16**). This question was not asked in the 2005 or 2012/13 surveys.

Table 3.16: Can you tell me the approximate age of your home?

Age of Home	Count	%
Up to 5 years old	29	3%
6 to 10 years old	71	7.5%
More than 10 years old	831	87.2%
Don't know/not applicable	22	2.3%
Total	**953**	

Visit History

3.58   When asked how long they had been visiting this site, the answers most commonly given by local groups were at the opposite ends of the scale: 40.4% of local visitors said they had been coming for over 11 years, and 26.9% for between one and five years, closely followed by 6 to 10 years at 22.9%. Only 6.7% had been visiting for less than a year. These results are similar to those reported in 2012 (**Table 3.17**).

Table 3.17: How long have you been coming here?

Time Period	Count	% 2018	% 2012
Less than a year	64	6.7%	10%
1-5 years	256	26.9%	26%
6-10 years	218	22.9%	25%
11+ years	385	40.4%	38%*
First visit	27	2.8%	Not asked
Unsure/ Don't know	3	0.3%	Not asked
Total	**953**		

* in 2012/13 this was within the 'Other' category, with responses ranging from over 10 to 67 years.

Visit Frequency

3.59   The majority of local visitors (69.6%) said they visited either daily (36.3%) or two to three times per week (35.5%). This increases to 82.2% when including only those groups with dogs (**Table 3.18**).

Table 3.18: How frequently do you visit this site?

Frequency	Count – all local groups	% - all groups	Count – local groups with dogs	% - groups with dogs
Daily	346	36.3%	332	45%
Two or three times a week	338	35.5%	275	37.3%
Once a week	125	13.1%	60	8.1%
Once a month	63	6.6%	35	4.7%
Sporadically (varies throughout the year)	54	5.7%	26	3.5%
First visit	26	2.7%	9	1.2%
Don't know	1	0.1%	1	0.1%
Total	**953**		**738**	
At least once a week (first three rows combined)	809	84.9%	667	90.4%
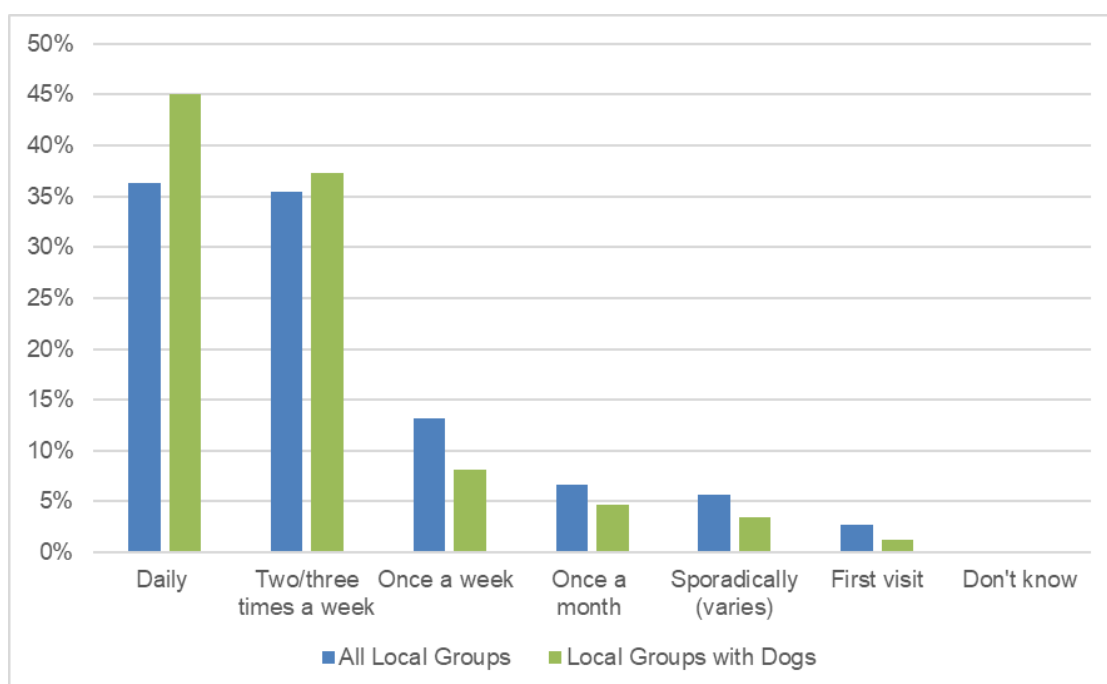
Figure 3.5: Visit frequency (local visitors).

3.60   The results are similar to those reported in 2012/13 (all local groups: 38% daily, 34% more than once per week; local groups with dogs: 44.7% daily, 36.8% more than once per week).

Visit Duration

3.61   Over half of visits by local groups were between 30 minutes and 1 hour in duration (57.3%) followed by one to two hours (28.1%). Groups with dogs were more likely to spend between 30 minutes and 1 hour on site (**Table 3.19**). This is broadly similar to 2012/13, which found that 64% of local groups spent less than an hour on site, and 31% one to two hours.

Table 3.19: How long have/will you spend here today?

Visit Duration	Count – all groups	Count – groups with dogs	% - all groups	% - groups with dogs
Less than 30 minutes	84	59	8.8%	8%
At least 30 mins, up to 1 hour	546	464	57.3%	62.9%
More than 1 hour, up to 2 hours	268	200	28.1%	27.1%
More than 2 hours, up to 3 hours	42	15	4.4%	2%
More than 3 hours	13	0	1.4%	0
Total	**953**	**753**		

Reasons for Choosing this Site

3.62   A wide range of factors were cited by local groups when asked why they had chosen this site over others. Groups could choose multiple options. The most common responses were that it was 'close to home' (61.6%), 'the dog enjoys it' (41.2%), 'quiet/peaceful' (39.6%), 'like the wide open landscape/scenery/views' (37.5%) and 'can let the dog off the lead' (31%).

3.63   Responses by dog-owning groups were similar, with higher percentages for 'close to home', 'dog enjoys it', 'can let the dog off the lead' and 'like the wide open landscape/scenery/views' (**Table 3.20**).

Table 3.20: What makes you come here, specifically, in preference to another site?

Reason	Count – all groups	Count – groups with dogs	% - all groups	% - groups with dogs
Close to home	587	477	61.6%	64.6%
Dog enjoys it	393	388	41.2%	52.6%
Quiet/peaceful	377	284	39.6%	38.5%
Like the wide open landscape/views	357	289	37.5%	39.2%
Can let dog off the lead	295	291	31.0%	39.4%
Feel safe	275	227	28.9%	30.8%
Length/variety of paths	259	201	27.2%	27.2%
Like the variety of natural habitats	253	207	26.5%	28.0%
Good/easy parking	206	183	21.6%	24.8%
Well maintained paths	194	149	20.4%	20.2%
Wildlife/nature watching	186	138	19.5%	18.7%
Not many people	179	140	18.8%	19.0%
Nearest greenspace	160	123	16.8%	16.7%
Presence of water	116	100	12.2%	13.6%
Particular facilities/ infrastructure	95	73	10.0%	9.9%
Other	77	51	8.1%	6.9%
For a change/variety	73	57	7.7%	7.7%
Don't know/others in party chose	7	4	0.7%	0.5%

3.64   The percentages cannot be directly compared to 2012/13, as groups were asked to give their single main reason for choosing the site rather than selecting all that applied. However, the general pattern is similar, with the most highly cited reasons in 2012/13 being: 'close to home',

'like the countryside/natural environment', 'good for the dog/dog enjoys it', and 'choice of routes/ability to do different circuits'. This question was not asked in 2005.

Routes Walked/Cycled

3.65   The maps drawn by visitors to show where they had walked/cycled during their visit were digitised and analysed using GIS (**Map 6**). Because this analysis provides information on the actual footfall and relative recreational pressure exerted across sites, routes for all visitors were mapped, including non-local visitors. **Maps 7a to 7m** show how visitor pressure is distributed across the SPA.

3.66   In total, 751 of the 982 interviewed groups (76.5%) provided maps that could be accurately digitised in GIS. A further 166 maps (16.9%) were less clear; these were also digitised but required some assumptions and interpretation on the part of the GIS analyst (e.g. where the route drawn did not match obvious paths). The figures provided in **Table 3.21** below are therefore approximations and the standard error is given.

3.67   63 local groups (6.6%) said they used Strava or a similar GPS tracking app. To date no routes have been submitted to EPR.

Route Lengths

3.68   Minimum, maximum and average route lengths were calculated for different subsets of visitors, as shown in **Table 3.21.**

Table 3.21: Route lengths by user group.

User Group	Total (n)	Minimum	Maximum	Average	Standard Error
All	917	78 m	18.3 km	3 km	+/- 67 m
Dog Walking	704	115 m	11.5 km	2.8 km	+/- 54 m
Walking	96	468 m	8.2 km	2.7 km	+/- 156 m
Local visitors	888	78 m	18.3 km	3 km	+/- 68 m
Local Visitors Subset					
Dog owners	700	78 m	18.3 km	2.8 km	+/- 59 m
Non-dog owners	188	97 m	15.3 km	3.8 km	+/- 226 m
Cyclists	49	216 m	18.3 km	6.8 km	+/- 657 m
Joggers	35	332 m	9.3 km	3.4 km	+/- 342 m
Not cycling or jogging	804	78 m	11.5 km	2.7 km	+/- 52 m
Arrived by car	702	78 m	18.3 km	3.1 km	+/- 81 m
Arrived on foot	176	115 m	7.2 km	2.7 km	+/- 103 m

3.69   The longest distance travelled on site was 18.3km, by a group who were visiting for the main purpose of cycling and had at least one dog with them. The shortest distance was 78m.

3.70   The average distance travelled by local visitors whilst on site, excluding cyclists and joggers, was 2.7km. Those who arrived by car travelled further on site (3.1km) than those who arrived on foot (2.7km).

3.71   On average, local groups with dogs did not walk/cycle/jog as far as those without (2.8km compared to 3.8km respectively). These route lengths appear to have increased compared to 2012/13, when local dog walking groups travelled 2.6km on average, and groups without dogs travelled 2.9km.

3.72   In 2005, route lengths were calculated for all visitors (non-locals were not filtered out). The average route length of the 'Dog Walking' user group in 2005 was 2.5km, and 2.3km for the 'Walking' user group. The equivalent route lengths in 2018 were longer, at 2.8km and 2.7km respectively.

Alternative Sites Visited

3.73   The majority of local visitors (65.9%) and local dog walkers (84.8%) said that this was their first choice of site.

3.74   Around two-thirds (65.9% of all local visitors, 67.8% of local dog walkers) said they also visited alternative sites. Interviewees were asked to name their top three alternative sites for their main activity that day. The ten most commonly cited sites, both as the first choice and overall (13 sites in total), are shown in **Table 3.22**. Of the 13 most popular alternative sites, eight are within the TBH SPA.

Table 3.22: Alternative sites visited.

Site	Count	Rank	Count	Rank	Description of site
	First choice		*All mentions*		
Windsor Great Park/Virginia Water	38	=1	86	1	SAC: parkland, gardens, lakes, woodland
Horsell Common/Woods/Lake	38	=1	67	3	Part of TBH SPA
Chobham Common	32	3	78	2	Part of TBH SPA
Newlands Corner	24	4	42	4	Chalk downland and woodland.
Lightwater Country Park	18	5	28	6	Part of TBH SPA
Hawley Common/Lake	13	6	33	5	Common is part of TBH SPA
Mytchett Common/Lake	11	7	16	=19	Common is part of TBH SPA
Pyrford Common	10	8	21	=10	Woodland and heathland SNCI
Swinley Forest	10	9	18	=15	Part of TBH SPA
Pirbright Common/ ranges	10	10	17	18	Part of TBH SPA
Wisley & Ockham Commons	9	11	22	=7	Part of TBH SPA
Basingstoke Canal	8	12	22	=7	SSSI
Unspecified Canal	5	13	22	=7	
Total	**953**		**753**		

Reasons for Choosing Alternative Sites

3.75   Of the 628 groups who said they visited alternative sites, the main reasons cited for choosing these sites were 'for a change/variety' (33.6%), 'the dog enjoys it' (33.6%), 'close to home' (30.9%), and 'quiet/peaceful' (28.8%) (**Table 3.23**).

Table 3.23: What factors draw you to these other places?

Reason	Count – all groups	% - all groups (n = 628)
For a change/variety	211	33.6%
Dog enjoys it	194	30.9%
Close to home	181	28.8%
Quiet/peaceful	161	25.6%
Like the variety of natural habitats	134	21.3%
Like the wide open landscape/ scenery/ views	133	21.2%
Can let dog off the lead	130	20.7%
Length/variety of paths	115	18.3%
Good/easy parking	102	16.2%
Well maintained paths	92	14.6%
Presence of water	92	14.6%
Wildlife/nature watching	81	12.9%
Feel safe	79	12.6%
Not many people	65	10.4%
Nearest greenspace	63	10.0%
Particular facilities/ infrastructure	43	6.8%
Other	43	6.8%
Don't know/others in party chose	5	0.8%

Visitor Awareness

3.76   The majority of local visitors (88.5%) said they were aware that they were at a protected nature conservation site. This figure rises to 92.4% when only considering local dog walkers. The Thames Basin Heaths Partnership was less well known, with 49.5% of all local visitors saying they had heard of it, and 56.5% of local dog walkers.

3.77   **Table A4.9 (Appendix 4)** breaks down these results by access point. This shows that awareness of both the SPA designation and the TBH Partnership was particularly high at APs 22 (Burdenshott Road), 27 (Chapel Road) and 29 (Car Park east of Foresters Arms).

3.78   The access points where visitors showed the least awareness of both the SPA designation and the TBH Partnership were APs 1 (Mytchett Place Road), 3 (The Lookout), 6 (Bourley Road), and 26 (Currie's Clump).

Other Monitoring Data

3.79   In addition to the visitor questionnaire monitoring survey, the SAMM Project collects data across the TBH SPA from automated people counters and car park transect surveys. This data was provided to EPR for context and to supplement the visitor questionnaire survey analysis and discussion.

3.80   In total, 11 of the automated people counter locations and 23 of the car park count locations match (or are very close to) the access points in the 2018 visitor survey.

3.81   It is beyond the scope of this report to carry out detailed analysis of the automated people counter and car park transect data, as a separate study has been commissioned to undertake

this work. However, an overview is presented below, and comparisons drawn to the 2018 visitor survey where applicable.

Automated People Counter Data

3.82   Since 2016, the SAMM Project has recorded automated people counter data at up to 36 locations across the SPA, including 11 that either match or are very close to the access points used in the 2018 visitor survey (listed in **Table A4.10, Appendix 4)**.

3.83   The automated people counters record footfall 24/7, on both entry and exit. This data is downloaded quarterly and loaded into Excel. Over time, the automated people counter data will be used to compare visitor numbers between the 36 sample locations, and to identify trends and patterns across different months and years.

3.84   So far, the data from 2016 has been subject to detailed analysis (SAMM Project, 2017a). This found that across the 21 locations surveyed in 2016, footfall peaked both during the summer months and in December/January, resulting in *"an overall similar level of access between the sensitive period and non-sensitive period* [for Annex 1 birds]*"* [our addition].

3.85   The 2017 and 2018 data has not yet been analysed in detail, therefore EPR has used the raw data provided by the SAMM Project to produce a summary of the first two and a half years of monitoring, covering the period 01/01/2016 to 19/08/2018 (**Table 3.24**). This shows the five busiest and quietest sites, with all 36 locations presented in **Table A4.11, Appendix 4**.

Table 3.24: Summary of automated people counter results.

SAMM Ref	2018 AP	Count Total 2016-2018	Total Count Hours*	Hourly Footfall
Highest Footfall				
SAMM016		1,975,376	23,040	85.7
SAMM032	AP24	730,491	22,536	32.4
SAMM022	AP5	163,765	12,456	13.1
SAMM005	AP1	147,742	12,480	11.8
SAMM018		145,579	12,432	11.7
Lowest Footfall				
SAMM026		5,411	23,040	0.2
SAMM025	AP19	4,392	22,536	0.2
SAMM024		3,378	23,040	0.1
SAMM033		2,618	22,368	0.1
SAMM027	AP8	860	14,568	0.1

* Based on number of days each counter was deployed between 01/01/16 and 19/08/18, full days only.
Variation is due to counters being deployed at different times, counter malfunctions, and theft/vandalism.

3.86   The automated people counter data and 2018 tally count data cannot be directly compared, due to the following fundamental differences between the two count methods:

- The tally counts were undertaken during the school summer holidays, and are intended to provide an estimate of footfall at the busiest time of year, which also coincides with the ground nesting bird season; and

- The automated people counters are active year-round, and the hourly rates therefore represent average footfall throughout the year.

3.87 This said, AP24 (Shore's Road) and AP5 (Top of King's Ride) recorded high relative footfall in both the tally count and automated people counter methods, indicating that these sites are popular with visitors year-round.

Car Park Transect Data

3.88 The SAMM Project have been carrying out car park counts across the SPA since 2013, including monthly counts since 2016. This involves driving fixed transects around the SPA over a two hour period (with days of the week and starting times varied throughout the year) and counting the numbers of vehicles in both formal and informal parking locations. The results will allow analysis of changes in car park use over time.

3.89 23 of the 163 parking locations match with access points used in the 2018 visitor survey. These locations are listed in **Table A4.12, Appendix 4**.

3.90 EPR has taken the raw data provided by the SAMM Project to produce a summary of the car park transect results for the 23 locations matching 2018 visitor survey access points (**Table 3.25**). This covers the months from January 2016 to August 2018 inclusive, and shows the five busiest and quietest sites, with all 23 locations presented in **Table A4.12, Appendix 4**.

Table 3.25: Summary of selected car park transect results (Jan 2016 – Aug 2018).

2018 AP	SSSI	Transect/ Location no.	All Vehicles	Commercial Dog Walking Vehicles
Highest Number of Vehicles				
AP3	Broadmoor to Bagshot Woods & Heaths	T3 / L7	3805	10
AP26	Ockham & Wisley Commons	T4 / L28	831	2
AP24	Horsell Common	T4 / L24	625	6
AP14	Colony Bog & Bagshot Heaths	T6 / L29	560	3
AP21	Whitmoor Common	T5 / L5	531	5
Lowest Number of Vehicles				
AP17	Hazeley Heath	T2 / L1	56	2
AP27	Ash to Brookwood Heaths	T5 / L12	39	0
AP10	Castle Bottom to Yateley & Hawley Common	T2 / L34	37	0
AP19	Sandhurst to Owlsmoor Bog & Heaths	T3 / L18	32	1
AP31	Castle Bottom to Yateley & Hawley Common	T2 / L21	9	0

3.91 Again, caution should be exercised when comparing these results to the tally count data as the car park counts are conducted throughout the year, not just in the summer. However, it is notable that in both surveys, AP3 (The Lookout), AP21 (Salt Box Road) and AP24 (Shore's Road) recorded high visitor numbers, while AP10 (Car Park off A30), AP27 (Chapel Lane) and AP31 (Layby south of A30) ranked in the bottom five sites in terms of both footfall and vehicle numbers.

Housing Numbers

3.92　The 2005 survey reported a significant relationship between the number of houses within 5km and total visitors leaving a site. Changes in housing numbers within the walking and driving catchments of the TBH SPA over time are therefore of direct relevance to this study.

3.93　The 2018 Royal Mail Postcode Dataset was analysed to calculate the number of residential delivery points (i.e. the number of dwellings) within 400m and 5km of the TBH SPA boundary. This was then compared to the figures from 2012/13 and 2005 (as reported in Fearnley & Liley, 2013) to calculate the percentage change in housing numbers since the previous surveys.

3.94　As shown in **Table 3.26**, there has been an increase in housing numbers of around 4.7% within 5km of the SPA since 2012/13, and 12.9% since 2005.

Table 3.26: Approximate number of dwellings within 400m and 5km of SPA boundary.

Distance from SPA boundary	2005	2012/13	2018	Difference 2005-2018	Difference 2012/13-2018
400m	Not reported		30,235	n/a	
5 km	288,109	310,525	325,174	+12.9%	+4.7%

3.95　The locations of new residential postcodes since 2013 are shown on **Map 8**.

Summary

3.96　This section has summarised the results of the 2018 tally count and visitor questionnaire surveys, drawing comparisons to the 2005 and 2012/13 surveys where possible. Full data tables are provided in **Appendix 4**.

3.97　Overall, as shown in the summary table in **Appendix 3**, the 2018 survey recorded a similar visitor profile to that in 2012/13 and 2005. The 'typical' SPA user could be described as a local resident making regular, short visits for the purposes of dog walking. The majority of visitors arrived by car and lived within 5km of the SPA. The typical visitor would choose to visit the SPA because it was close to home, the dog enjoys it, for the peace and quiet, and/or the landscape and scenery.

3.98　Notable differences between the 2018 and 2012/13 and 2005 results are as follows:

* A statistically significant decrease in footfall (people) across the 24 access points surveyed in 2005 and 2018;

* Decreases in footfall (both people and dogs) across the 30 access points surveyed in both 2012/13 and 2018, although these decreases are not statistically significant;

* Notable increases in footfall at APs 4 (Top of Bracknell Road), 8 (North Entrance to Warren Heath), 14 (Lightwater Country Park), 28 (Sandy Hill Road) and 29 (Car Park east of Foresters Arms) compared to 2012/13, and at AP19 (South Road) compared to 2005;

* Notable decreases in footfall at APs 1 (Mytchett Place Road), 12 (Chobham Common), 15 (Sandpit Hill) and 23 (Chobham Road) compared to 2012/13, and at APs 12 and 26 (Currie's Clump) compared to 2005;

- Higher numbers of commercial dog walking vehicles observed than in 2012/13;

- Fewer dogs observed off the lead compared to 2012/13;

- Slight drop in the proportion of groups who had been visiting for less than 1 year compared to 2012/13;

- Longer routes walked/cycled on site compared to 2012/13 and 2005; and

- Slightly larger walking and driving catchments for the SPA compared to 2012/13.

3.99   **Section 4** will explore these results in more depth and discuss potential reasons for the identified changes in visitor numbers and patterns compared to 2012/13 and 2005.

4. DISCUSSION

Introduction

4.1 As set out in **Section 3**, the 2018 visitor surveys recorded a broadly similar visitor profile to that reported in 2012/13 and 2005, albeit with some changes in relation to the proportion of dogs off leads, travel distances and visitor catchments, and lengths of routes taken on site. Certain access points have seen apparent increases in footfall, in contrast to the overall trend. Higher numbers of commercial dog walking vehicles were also recorded in 2018 compared to 2012/13.

4.2 However, the most striking change between the 2018 survey and previous surveys in 2012/13 and 2005 is the overall drop in visitor numbers across the access points surveyed, including a statistically significant decrease in footfall compared to 2005, indicating a gradual change over time. The latter is particularly notable in the context of a 12.9% increase in housing numbers within 5km of the SPA boundary over the same time period, together with the general trend towards increased levels of access to the countryside.

4.3 Several factors could have influenced visitor patterns and behaviour in 2018. Across the SPA as a whole, these include:

- Weather conditions in summer 2018;

- The distribution of new housing; and

- The adoption of impact avoidance strategies by Local Planning Authorities as per the JSPB Delivery Framework 2009, and subsequent implementation of SANG and SAMM measures in association with new residential development.

4.4 The following site-specific factors may also have changed since 2005 and/or 2012/13:

- Parking availability and charges;

- Access and footpath provision;

- Habitat management;

- Visitor management and infrastructure; and

- Incidences of anti-social behaviour.

4.5 Each of these potential influencing factors is discussed further below, followed by consideration of the implications of the 2018 survey results for the ongoing implementation of impact avoidance and mitigation strategies (as led by guidance set out within the JSPB 2009 Delivery Framework and local authority documents derived from it), as well as suggestions for the future targeting of mitigation measures at different access points, and the planning and design of SANG.

SPA-Wide Factors

Weather Conditions

4.6 As mentioned in **Section 3**, summer 2018 was the joint hottest on record, and members of the public were advised to avoid walking their dogs during the hottest part of the day. Wildfire

warnings were also in place across the SPA and incidences of wildfire were reported at Ash Ranges, Chobham Common, Whitmoor Common, Yateley Common, Horsell Common and Sheets Heath.

4.7   It is certainly possible that the weather conditions discouraged people from visiting the SPA, however 84.6% of the survey sessions were reported to be 'cool, warm or mild'. Further, the 2012/13 visitor survey also noted that the weather in summer 2012 was 'atypical', with August 2012 experiencing unusually high rainfall, although only six APs were surveyed in wet conditions in August.

4.8   The weather in August 2005 was generally a mixture of fine and warm and 'unsettled' (Met Office, 2013). At least 30 minutes of rain was experienced during 22 of the survey sessions in 2005 (44 survey hours).

4.9   On balance, a mixture of weather conditions were experienced in all three survey years, and although the hot weather in 2018 may have influenced visitor numbers to some degree, it is unlikely that the weather conditions alone explain the overall drop in visitor numbers across the access points surveyed compared to 2012/13 and 2005.

Distribution of New Housing

4.10   **Map 8** displays the location of new residential delivery points (i.e. dwellings) compared to 2013 (it is possible that some of these represent the reassignment of postal codes rather than new dwellings, however it is likely that the majority represent new development). This shows that new housing is spread out across the 5km SPA driving catchment, with clusters around Aldershot, south of Fleet, Blackwater/Camberley, Bracknell, Woking and Guildford.

4.11   Each new residential development of one dwelling or more within the 5km catchment will have been required to provide (or contribute towards) SANG, as discussed below.

Implementation of SANG

4.12   According to information supplied by Natural England, approximately 56 SANGs are now open across the SPA (as of November 2018), as shown on **Map 9** and listed in **Table A5.1, Appendix 5.** These are actively promoted by the Thames Basin Heaths Partnership as part of the SAMM Project, including a searchable online directory/map and a booklet, 'Greenspace on Your Doorstep', which is handed out by wardens on the SPA and at events.

4.13   All of these SANGs were opened post-2005, and the majority post-2012. Their driving catchments (according to the size categories set out in the JSPB 2009 Delivery Framework) are shown on **Maps 10a and 10b**. This shows that the majority of the 5km SPA driving catchment overlaps with at least one SANG catchment, including all of the access points surveyed in 2018.

4.14   There are two notable gaps in SANG catchment coverage, to the west of Bramshill/Hazeley Heath and to the north of Chobham Common. The former area covers sparsely populated open countryside and small villages between Basingstoke and Reading, and the latter mainly consists of the southern part of Windsor Great Park Special Area of Conservation (SAC).

4.15   In total, 323,662 of the dwellings within the 5km SPA driving catchment fall within the catchment of at least one SANG. This represents 99.5% of all dwellings within the 5km SPA driving catchment.

4.16   SANG visitor surveys are in the process of being undertaken by the SAMM Project and private landowners. Comprehensive analysis of the results of this work is still to be undertaken, however early indications are that SANG is proving to be an effective means of diverting recreational pressure away from the SPA. For example:

- Visitor surveys undertaken by EPR at the Langley Mead SANG in Berkshire have found that 74% of groups interviewed said they were less likely to visit Bramshill SSSI (the nearest part of the SPA) now that the SANG was available (EPR, 2018); and

- The results of visitor surveys carried out at 17 SANGs over winter 2016/17 found that the majority of groups matched the main SPA target user group of local, regular dog walkers (SAMM Project, 2017b).

4.17   The 2018 survey found that residents of new housing made up a very small proportion (3%) of the groups interviewed (see **Table 3.16**). Furthermore, only 6.7% of local groups had been visiting for less than one year (see **Table 3.17**). These results suggest that SPA users are largely made up of long standing local residents who have become habituated to visiting the SPA over time, potentially because historically the SPA sites were amongst the main 'countryside' sites available for recreation, rather than new residents who presumably visit other sites for recreation where an increasing range of accessible greenspaces includes SANGs.

4.18   It is therefore possible, and indeed likely, that the increased availability of SANGs has influenced the significant drop in footfall across the access points surveyed in 2005 and 2018.

4.19   **Maps 10a** and **10b** overlay SANG catchments with new and existing postcode locations and the access points surveyed in 2005 and 2012/13 respectively, colour coded according to the recorded change in footfall. As described in **Section 3**, the apparent changes in footfall at individual access points should be interpreted with a degree of caution, as they only represent data collected from a limited period of survey during the summer months. However, these maps provide a starting point for more detailed analysis of the relationship between new and existing housing, SANG, and access patterns on the SPA. This will be informed by analysis of the results of the ongoing automated people counter, car park transect and SANG visitor surveys.

Implementation of SAMM

4.20   SAMM measures are implemented by the Thames Basin Heaths Partnership, set up in July 2011. All of these measures have therefore been implemented post-2005, and the majority post-2012.

4.21   Key SAMM measures include:

- Year-round wardening across the SPA from 07:00 – 19:30 (daylight permitting, commenced March 2015);

- TBH Partnership website and social media presence with information on the SPA and SANG;

- Printed media including the 'Greenspace on your Doorstep' booklet;

- Regular events including an inaugural 'Heath Week' in 2018;

- Educational programme including events with local schools; and

- Dedicated 'Heathland Hounds' initiative in partnership with dog wardens.

4.22   In total, 10,450 hours of wardening were completed across the SPA between September 2016 and August 2018 inclusive. During this time 18,843 interactions with members of the public were logged, and 14,961 leaflets were handed out. **Figure 4.1** shows how the total hours, interactions and leaflets varied across the 12 SSSIs included within the visitor survey.
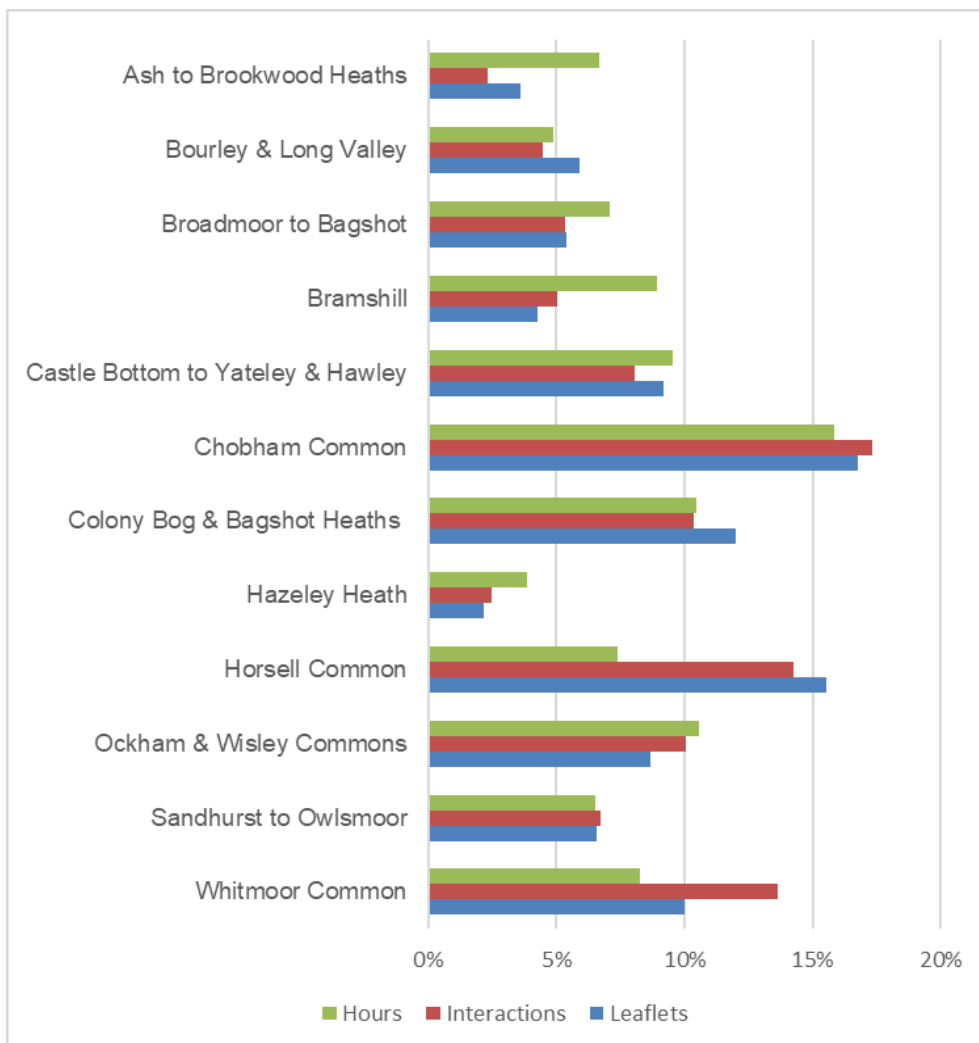
Figure 4.1: Total wardening hours, interactions and leaflets handed out across component SSSIs.

4.23   Particularly high levels of wardening and public interaction were recorded at Chobham Common, Horsell Common, Colony Bog & Bagshot Heaths, Whitmoor Common and Ockham & Wisley Commons.

4.24   **Figure 4.2** shows the relationship between total wardening hours on an SSSI and the number of new interactions recorded (i.e. visitors who had not already been spoken to). This shows a weak negative correlation between total wardening hours and the number of new interactions, which is to be expected as the number of people already spoken to should increase as wardening hours increase. This correlation is not statistically significant (*Spearman's Rank: n=12, Spearman rho= -0.364, p=0.245).*
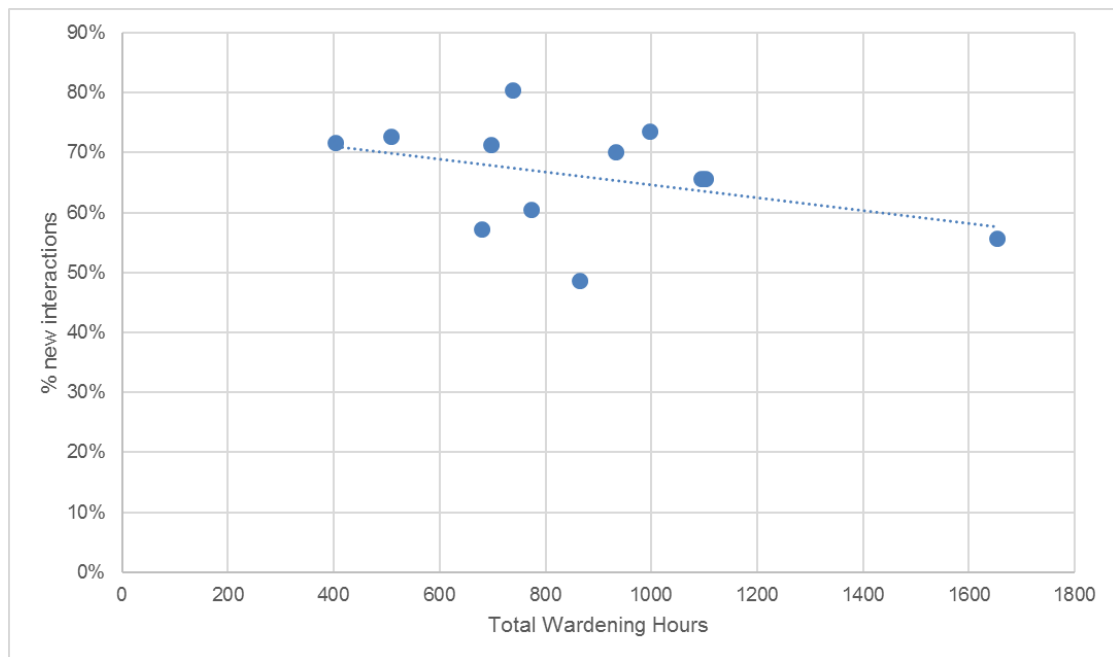
Figure 4.2: Total wardening hours and % new interactions.

4.25   Pooling the data for all access points within an individual SSSI facilitates analysis of whether there is a correlation between wardening levels and particular aspects of visitor behaviour (for example, desirable behaviours that have the potential to reduce disturbance to the SPA birds). This revealed that there is <u>no</u> statistically significant correlation between wardening hours on an SSSI and the proportion of dogs kept on the lead at the access points within it (*Spearman's rank: n=12, Spearman rho= -0.035, p=0.914)*, or between wardening hours and the proportion of dogs staying on the paths (*Spearman's rank: n=12, Spearman rho= 0.161, p=0.618*).

4.26   The proportion of dogs off leads amongst local groups who had been visiting for 6 years or more was slightly higher than for those who had been visiting for less than a year (55.1% vs 48.8%), which may reflect an element of habituated behaviour. However, local groups who had been visiting for 1 to 5 years had a higher percentage of dogs leaving the paths compared those who had been visiting for at least 6 years (67.2% vs 61.7%).

4.27   Overall, however, the 2018 visitor survey found that awareness of the TBH SPA designation is high, particularly amongst dog walkers, and 49.5% of all groups interviewed had heard of the Thames Basin Heaths Partnership. It will be interesting to monitor whether levels of awareness continue to increase with the next update of the visitor questionnaire survey, and whether there is any corresponding change in the percentages of dogs off leads and/or leaving the paths.

Site-Specific Factors

4.28 In addition to SPA-wide factors potentially affecting visitor numbers and patterns, site-specific factors may also have had an influence. These include changes to site management, access and parking, visitor infrastructure, the volume and proximity of new housing, and the type, size and proximity of SANG. Changes to how visitors use a site could also affect the tally count results – for example, through a shift upwards or downwards in visitors entering or exiting at alternative access points to those surveyed.

4.29 Landowners and managers across the 30 access points provided information on changes that have taken place at their sites since 2012/13. The majority did not report any major changes that could potentially affect visitor numbers, with the following exceptions:

- In 2018, bunds were installed along the roadside at AP1 (Mytchett Place Road) to block off informal parking. This AP saw a decrease in footfall compared to 2012/13 which could be explained by these parking restrictions;

- A new perimeter fence at Long Valley, erected in January/February 2018, could potentially discourage visitors at APs 28 and 29 – however footfall actually appears to have increased in these locations; and

- Traveller incursions took place at AP12 (Chobham Road) in July and late August 2018. This is likely to explain the decrease in footfall compared to 2012/13.

4.30 Weather conditions encountered at specific access points during the surveys may also account for site-level changes in footfall. For example, at AP4 (Top of Bracknell Road) the 2012/13 survey report notes that prolonged rain occurred during the surveys. It is therefore likely that the apparent increase in footfall at this location in 2018 is a result of the 2012/13 survey results being an under-estimate of true visitor numbers. Conversely, half of the 2018 survey sessions at AP23 (Chobham Road, Horsell Common) were affected by heavy rain, which could explain the apparent drop in visitor numbers compared to 2012/13.

4.31 All of the access points are within at least one SANG catchment (**Maps 10a and 10b**), but some are particularly close to large SANGs, notably APs 5 (Top of King's Ride), 6 (Bourley Road), 23 (Chobham Road) and 24 (Shore's Road). APs 5 and 6 both saw a decrease in footfall compared to 2005, with inconclusive results compared to 2012/13. AP23 has seen a large drop in footfall compared to both years (although this may also be partially explained by the weather conditions mentioned above), and AP24 has seen a slight increase.

4.32 Overall, with some notable exceptions, there are no clear or consistent site-specific factors that could explain site-level changes in footfall compared to 2005 or 2012/13. It is therefore more likely that SPA-wide factors have had the greatest influence on the overall decreasing trend in footfall across the survey locations compared to 2005 and 2012/13.

Implications for Impact Avoidance and Mitigation Strategies

4.33 The results of the 2018 visitor survey indicate that the present approach to impact avoidance and mitigation on the TBH SPA, which chiefly targets regular local dog walkers, is still appropriate.

4.34   The absence of clear and consistent site-specific factors that could potentially explain the significant decrease in visitor numbers across the 24 surveyed access points since 2005 (and the non-significant decrease since 2012/13) suggests that SPA-wide factors are more likely to have influenced this result. These factors include the implementation of SANG and SAMM measures since 2005, and to a lesser extent, variation in weather conditions between the survey years.

4.35   The indicative driving catchment for the SPA has increased to 5km from 4.6km in 2012/13, however the 5km catchment set out in the 2009 Delivery Framework and associated local authority strategies remains appropriate.

4.36   The average distance travelled by local visitors whilst on site has increased compared to 2005 and 2012/13, with an average route length in 2018 of 3km (2.7km when excluding joggers and cyclists). Natural England's *Guidelines for the Creation of SANGs* (NE, 2008) presently advise that SANGs should provide a minimum circular walk length of at least 2.3km, which may need to be reviewed in light of the 2018 survey results.

Recommendations for Targeted SAMM Measures

4.37   The overall increase in the numbers of dogs kept on the lead compared to 2012/13, and the generally high levels of awareness of the TBH SPA designation, support the continued implementation of wardening and education efforts as part of the SAMM Project.

4.38   This said, these results varied across the 30 access points, as did the proportion of dogs staying on the designated paths, and this information can be used to inform the focus of future wardening and education efforts.

4.39   **Table A6.1** in **Appendix 6** therefore sets out a summary of the locations where future SAMM measures could be usefully targeted. This highlights the access points where the proportions of dogs on the lead, dogs staying on paths, and awareness of the TBH SPA and TBH Partnership were lower than others, as well as the access points with notable increases in footfall since 2005 and/or 2012/13 (as per **Tables 3.3** and **3.4**), and those where the numbers of commercial dog walking vehicles have increased since 2012/13.

Recommendations for SANG Planning and Design

4.40   As discussed above under 'Implementation of SANG', it is likely that the increased availability of SANG since 2005 has influenced the drop in visitor numbers across the access points surveyed. SANG should continue to be promoted through face-to-face and online/print communications such as the 'Greenspace on your Doorstep' booklet, and SANG visitor surveys should continue to form a core component of SAMM.

4.41   The 2018 survey results support existing principles behind SANG design, including the requirement for SANGs to be dog friendly, quiet/peaceful and with a variety of natural habitats (see **Table 3.23**). A variety of walking routes should be provided, including some that are up to 2.8 km long (the average route length for local dog walkers). SANGs should be located within the 5 km driving catchment of the SPA ('close to home') and opportunities to create new SANGs, or connect existing ones, should be explored in areas where there are gaps (**Maps 10a and 10b**).

Conclusions

4.42   This study has collected and presented up to date qualitative and quantitative data on visitor numbers, behaviour and patterns of access at 30 surveyed locations across the TBH SPA. This data has been compared to the results of the baseline study in 2005, and the first monitoring survey in 2012/13.

4.43   The 2018 visitor survey recorded a statistically significant drop in visitor numbers across the 24 access points surveyed in both 2005 and 2018, in spite of a concurrent 12.9% increase in housing numbers within 5km of the SPA. There was also a decrease in visitor footfall compared to 2012/13, although this was not statistically significant, suggesting that the trend towards lower visitation levels is taking place gradually over time.

4.44   As discussed in **Section 3**, comparison of tally count data from the peak summer holiday period is not the most effective method of measuring changes in visitor numbers across the SPA as whole, and the results of the ongoing automated people counter and car park transect surveys, once available, should also be reviewed to confirm whether this is a common trend.

4.45   The 2018 catchment analysis calculated an indicative driving catchment of 5km linear distance from the SPA boundary, therefore the 5km 'zone of influence' set out in the JSPB 2009 Delivery Framework and associated local authority plans and strategies remains valid.

4.46   The overall visitor profile recorded in 2018 supports the continued targeting of SANG and SAMM measures at local dog walkers. It is encouraging that the proportion of dogs observed off the lead has decreased since 2012/13, although the increase in commercial dog walking vehicles is of concern.

4.47   In the absence of clear and/or consistent site-specific factors, it is most likely that the implementation of SANG and SAMM measures since 2005 have had the greatest influence on visitor patterns and behaviour. Awareness of the TBH SPA designation is very high and indicates that the SAMM measures and messages implemented by the TBH Partnership are effectively reaching visitors.

4.48   Suggestions are made in relation to the planning and design of future SANG provision, and analysis of the results of the ongoing SANG visitor surveys will allow these to be refined and built upon further. Recommendations are also set out for further targeting of wardening and education efforts in locations where the survey results indicate that they would have the greatest influence.

4.49   **Maps 10a** and **10b** demonstrate how the relationship between new and existing housing numbers, SANG coverage, and changes in footfall at individual access points can be visually displayed. This provides a starting point for more detailed analysis that can be undertaken in conjunction with the results of the ongoing automated people counter, car park transect and SANG visitor surveys, to build up a clearer picture regarding access patterns across the SPA. Ultimately, this should be considered in the context of data on the distribution and status of Annex I bird populations, to investigate whether there is a link between changes in patterns of public access and the conservation status of the species for which the SPA was designated.

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Maps

Appendix 1
Tally Sheet 2018

Tally Sheet 2018					
Date:					
Day of week:					
Surveyor:					
Location code:					
Location name					
Time period (circle one)	07:00-09:00	10:00-12:00	13:00-15:00	17:00-19:00	
Weather					
Cloud cover (eighths)					
Rainfall (circle one)	none	yes- less than 0.25 of the 2 hour period	yes, 0.25-0.5 of the 2 hour period	yes - 0.5-0.75 of the 2 hour period	yes- more than 0.75 of the 2 hour period
Temperature (circle one)	cool	mild	warm	hot	
Give any further details on weather if likely to affect visitor numbers e.g. high winds, thunder					
Tally- entering	adults		children		dogs
Tally- leaving	adults		children		dogs
Max no of cars parked					
No. commercial dog walking vehicles parked					
No of refusals					
No who had done survey already					
Notes					

Appendix 2
Visitor Questionnaire 2018

No.	Question	Notes to Surveyor / Consultant	Options (code)					
1	Which of the following best describes your situation today?	*Tick one*	Visiting from home	On holiday, staying away from home	Visiting/ staying with friends/ family	Other (free text)		
			1	2	3	4		
2	What is the main activity you are undertaking today?	*Tick closest answer. Do not prompt. Single response only.*	Dog walking	Commer-cial dog walking	Walking	Jogging/ exercise	Cycling/ mountain biking	Horse riding
			1	2	3	4	5	6
			Bird/ wildlife watching	Other (free text)				
			7	8				
3	How long have you been coming here?	*Tick closest answer, single response only. Only prompt if interviewee struggles.*	First visit	Less than a year	1-5 years	6-10 years	10+ years	Unsure/do n't know
			1	2	3	4	5	6
4	How long have/will you spend here today?	*Tick closest answer, single response only. Only prompt if interviewee struggles.*	Less than 30 mins	30 mins -1 hour	1-2 hours	2-3 hours	3 hours+	
			1	2	3	4	5	
5	How frequently do you visit this site?	*Tick closest answer. Single response only. Only prompt if interviewee struggles.*	Daily	Two-three times a week	Once a week	Once a month	Sporadical ly (varies throughout the year)	First visit
			1	2	3	4	5	6

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No.	Question	Notes to Surveyor / Consultant	Options (code)					
			Don't know					
			7					
6	How did you travel here?	*Single response only.*	Car/van	Foot	Bicycle	Public transport	Horse	Other (free text)
			1	2	3	4	5	6
7	What makes you come here, specifically, in preference to another site? What do you particularly like about it?	*Tick all that apply. Ideally do not prompt. If interviewee struggles, try rephrasing question or failing that show them the list.*	Close to home	Nearest green space	Can let dog off the lead	Dog enjoys it	Good/ easy parking	Particular facilities/ infrastruct ure
			1	2	3	4	5	6
			Feel safe	Length/ variety of paths available	Well maintain-ed paths	Not many people	Quiet/ peaceful	Like the variety of natural habitats
			7	8	9	10	11	12
			Like the wide open landscape / scenery/ views	Presence of water	Wildlife/ nature watching	For a change/ variety	Don't know/ others in party chose	Other (free text)
			13	14	15	16	17	18
8	Is this your first choice of places to visit in the area?	*Single response only.*	Yes	No				
			1	2				
9	Aside from here, do you visit any other places for (insert activity)? If yes: Please could you name your top 3 locations for this activity, in order of preference?	*Record single site names. Check specifics e.g. spelling if necessary, location/name of site, rather than general areas e.g. "the woods" or "the common" - (sites need to be identified on a map for analysis) take a description if not sure. Briefing pack includes list of local sites and a map for reference.*	Site name 1 (free text)	Site name 2 (free text)	Site name 3 (free text)	Not sure/don't know	Nowhere/ wouldn't have visited anywhere	
			1	2	3	4	5	

No.	Question	Notes to Surveyor / Consultant	Options (code)					
10	What factors draw you to these other places? What do you like about them?	*Tick all that apply. Ideally do not prompt. If interviewee struggles, try rephrasing question or failing that show them the list.*	Close to home	Nearest green space	Can let dog off the lead	Dog enjoys it	Good/easy parking	Particular facilities/ infrastructure
			1	2	3	4	5	6
			Feel safe	Length/ variety of paths available	Well maintain-ed paths	Not many people	Quiet/ peaceful	Like the variety of natural habitats
			7	8	9	10	11	12
			Like the wide open landscape / scenery/ views	Presence of water	Wildlife/ nature watching	For a change/ variety	Don't know/ others in party chose	Other (free text)
			13	14	15	16	17	18
11	So that we can analyse access patterns to the heathland areas, please could you give me your full home postcode?	*Very important data from survey so check for accuracy. Reassure if needed that this only identifies to street/general area.*	(free text)					
11a	What is the name of town or village where you are staying locally? (or if unwilling to provide postcode at 4a)	*(for those staying away from home) Get spelling if necessary for town/village.*	(free text)					
12	Can you tell me the approximate age of your home?	*Tick one.*	Less than 5 years old	5 to 10 years old	10+ years	Don't know/ not applicable		
			1	2	3	4		
13	Now I'd like to ask you about your route today. Looking at the area shown on this map, can you show me where you	*Use P to indicate where visitor parked. E to indicate start point and X to indicate exit. Mark route with a line, sticking to existing footpaths unless the interviewee stated that they left the paths. Use solid*	(record map reference ID)					

No.	Question	Notes to Surveyor / Consultant	Options (code)					
	parked if you came by car? Then where you started your walk or visit today? And the finish point. And your route please?	*line for actual route and dotted line for expected/remaining route. If place where respondent parked is not marked on map, please record where they did park - car park or name of road.*						
13a	Did you use any GPS tracking app today (e.g. Strava) and would you be prepared to share your data?	*Use surveyor judgement about who to ask this to (most likely user group joggers/cyclists). Provide information from FAQ sheet about email address for emailing data, ask them to specify activity when emailing data and provide interviewee with interview reference to include on email for cross referencing.*	Yes	No	Not applicable			
			1	2	3			
14	Did your dog leave the marked footpaths or tracks during your visit today?	*(If interviewee has dog(s) with them) Tick one.*	Yes	No	Don't know			
			1	2	3			
15	Are you aware that the site is a protected conservation site?	*Surveyor can explain site is protected by conservation laws and policy, mention Site of Special Scientific Interest (SSSI)/Special Protection Area (SPA) if necessary, if visitor is interested- refer to FAQ.*	Yes	No	Not sure/ don't know			
			1	2	3			
16	Finally, have you heard of the Thames Basin Heaths Partnership and its work? (e.g. wardens with maroon tops/black coats with SPA warden writing)	*If not, explain that the partnership is made up of 26 organisations including local authorities and conservation bodies, set up in 2015 to provide a wardening service and promote the conservation of the Thames Basin Heaths and its wildlife. There is a website www.tbhpartnership.org.uk/ with information about the Thames Basin Heaths and other country parks and green spaces in the local area, plus news and events.*	Yes	No	Not sure/ don't know			
			1	2	3			
That is the end. Thank you very much indeed for your time.								

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To be completed after interview finished and before next one started:	
Surveyor initials	
Survey location	
Interview reference/Map ID	
Total number in interviewed group	
Total over 65	
Total 41-65	
Total 18-40	
Total minors	
Number of dogs on lead	
Number of dogs off lead	
Surveyor comments	
(note anything that may be relevant to the survey, including any changes to the survey entry that are necessary, e.g. typos/mistakes/changes to answers/additional information.)	

Appendix 3

Comparison between 2005, 2012/13 and 2018

Table A3.1 sets out a comparison of key visitor data from 2005, 2012/13 and 2018. Data for 2012/13 is presented both separately and combined, to allow comparison between years (August/September of each year) and times of year (May/June vs August/September).

Table A3.1: Summary data - 2005, 2012/13 and 2018.

Visitor Data	August/ Sept 2018	May/June 2012	August 2012	2012/13 combined	August 2005
Access Points Surveyed	30	29	30	30	26
Survey Hours	480	464	464	948	416
Tally Count Data					
Total Entries (adults + children)	3,001	2,521	3,888	6,409	3,331
Total Entries (dogs)	1,847	1,963	2,351	4,314	Not counted
Total Exits (adults + children)	2,249	Not reported		5,448	2,856
Total Exits (dogs)	1,159			3,821	Not counted
Total Commercial Dog Walking Vehicles	113			45	Not counted
% of Entries: 07.00-09.00	21.5%	Not reported		18.5%	15.4%
% of Entries: 10:00-12:00	25.2%			33.6%	30.4%
% of Entries: 13:00-15:00	33.3%			27.6%	34.9%
% of Entries: 17:00-19:00	20%			20.3%	19.2%
% of Entries: weekday	44%	40%	43%	41.5%	41%
% of Entries: weekend	55.9%	60%	57%	58.5%	59%
Questionnaire Data					
Total Groups Interviewed	982	1,199	1,284	2,483	1,114
Total People within Groups Interviewed	1,553	1,838	2,020	3,859	2,062

Visitor Data	August/ Sept 2018	May/June 2012	August 2012	2012/13 combined	August 2005
Average Group Size	1.6	1.53	1.57	1.5	1.8
Number of Dogs with Interviewees	1,174	1,458	1,479	2,921	1,271
Average number of dogs per group	1.2	1.2	1.1	1.2	1.1
Average number of dogs per dog-owning group	1.6	1.5	1.5	1.5	1.5
% of Groups with at least one dog	76.3%	83%	78%	80%	72%
% aged under 18	11.8%	10%	10%	10%	16%
% aged 18-40	24.4%	20%	23%	22%	Not asked
% aged 41-65	44.6%	55%	51%	53%	
% aged 65+	19.2%	14%	15%	15%	
'Local' Groups	97%	98%	97%	98%	Not asked
Local Groups Subset					**All Groups***
% of Groups with at least one dog	77%	83%	79%	81%	Not recorded
% of Groups with at least one dog off lead	54.6%	70%	65%	67%	
Dogs left the paths	62.6%	Not asked			Not asked
Main Reason for Visit: Dog Walking	74.6%	Not comparable (groups could select more than one answer), however in both 2005 and 2012/13 dog walking was the most commonly cited activity, followed by walking.			
Main Reason for Visit: Walking	9.8%				
Main Reason for Visit: Cycling/Mountain Biking	6.4%				
Main Reason for Visit: Other	2.9%				
Main Reason for Visit: Commercial Dog Walking	2.3%				
Mode of Transport: Car/van	80%	75%	75%	75%	83%*
Mode of Transport: On foot	18.9%	22%	21%	22%	13%*
Mode of Transport: Bicycle	1.2%	2%	3%	2%	4%*
Postcodes within 5km of SPA boundary	91.8%	Not reported		94%	Not reported

Visitor Data	August/ Sept 2018	May/June 2012	August 2012	2012/13 combined	August 2005
Postcodes within 400m of SPA boundary	20.9%			25%	
Indicative Walking Catchment (75th percentile)	1 km	Not reported		0.9km	Not reported
Indicative Driving Catchment (75th percentile)	5 km			4.6km	
Age of Home: <5 years	3%	Not asked			Not asked
Age of Home: 6-10 years	7.5%				
Age of Home: 10+ years	87.2%				
Visiting since: < 1 year	6.7%	10%	11%	10%	Not asked
Visiting since: 1-5 years	26.9%	28%	24%	26%	
Visiting since: 6-10 years	22.9%	28%	22%	25%	
Visiting since: 11+ years	40.4%	34%	42%	38%	
Visit Frequency: Daily	36.3%	41%	36%	38%	52%*
Visit Frequency: 2 or 3 times a week (2012/13: 'more than once per week')	35.5%	33%	36%	34%	Not asked
Visit Frequency: at least once per week	84.9%	86%	81%	83%	25%*
Visit Duration: 30 minutes to 1 hour (2012/13: 'less than an hour'	57.3%	64%	64%	64%	Not asked
Visit Duration: 1 to 2 hours	28.1%	32%	31%	31%	
Visit Duration: 2 to 3 hours	8.8%	4%	4%	4%	
Average Length of Route on Site: All Groups	3 km	Not reported			
Average Length of Route on Site: Dog Walking (all groups)	2.8 km	Not reported			2.5 km
Average Length of Route on Site: Walking (all groups)	2.7 km	Not reported			2.3 km
Average Length of Route on Site: Local Groups	3 km	Not reported		2.8 km	Not reported
Average Length of Route on Site: Dog Walkers (local groups)	2.8 km			2.6 km	
Average Length of Route on Site: Non-Dog Walkers (local groups)	3.8 km			2.95 km	
Reasons for Choosing this Site: Close to Home	61.6%				Not asked

Visitor Data	August/ Sept 2018	May/June 2012	August 2012	2012/13 combined	August 2005
Reasons for Choosing this Site: Dog Enjoys It	41.2%	Not comparable (groups could only select one main answer, however the top five answers were 'close to home', 'like the countryside/ natural environment', 'good for the dog/dog enjoys it', 'choice of routes/ability to do different circuits' and 'other'.			
Reasons for Choosing this Site: Quiet/Peaceful	39.6%				
Reasons for Choosing this Site: Like the Landscape/Scenery/views	37.5%				
Reasons for Choosing this Site: Can let Dog off Lead	31%				
First Choice of Site = yes (all)	65.9%	Not asked			Not asked
First Choice of Site = yes (dog walkers)	84.8%				
Visit Alternative Sites = yes (all)	65.8%	Not reported			75%*
Visit Alternative Sites = yes (dog walkers)	67.8%				Not reported
Reasons for Choosing Alternative Site: For a change/variety	33.6%	Not asked			Not asked
Reasons for Choosing Alternative Site: Dog Enjoys It	30.9%				
Reasons for Choosing Alternative Site: Close to Home	28.8%				
Reasons for Choosing Alternative Site: Quiet/Peaceful	25.6%				
Reasons for Choosing Alternative Site: Like the variety of natural habitats	21.3%				
Aware of TBH SPA designation	88.5%	Not asked			Not asked
Aware of TBH Partnership	49.5%				

* Figure taken from all groups, rather than ''local groups' subset

Appendix 4
Data Tables 2018

Table A4.1: List of access points surveyed (all years).

AP	Name	Grid Reference	Component SSSI	2005	2012	2018
1	Mytchett Place Road	SU893549	Ash to Brookwood Heaths	Yes	Yes	Yes
2	Nightingale Road/A323	SU904512	Ash to Brookwood Heaths	Yes	Yes	Yes
3	The Lookout	SU877661	Broadmoor to Bagshot Woods & Heaths	Yes	Yes	Yes
4	Top of Bracknell Road	SU890623	Broadmoor to Bagshot Woods & Heaths	Yes	Yes	Yes
5	Top of King's Ride	SU875621	Broadmoor to Bagshot Woods & Heaths	Yes	Yes	Yes
6	Bourley Road	SU843509	Bourley & Long Valley	Yes	Yes	Yes
7	*South entrance to Bramshill Plantation*		*Bramshill*	*Yes*	*No*	*No*
8	North Entrance to Warren Heath	SU760613	Bramshill	Yes	Yes	Yes
9	Car Park off Cricket Hill Lane	SU821596	Castle Bottom to Yateley & Hawley Common	Yes	Yes	Yes
10	Car Park off A30, Haywards Cottage	SU838594	Castle Bottom to Yateley & Hawley Common	Yes	Yes	Yes
11	*Black Bushes Road*		*Castle Bottom to Yateley & Hawley Common*	*Yes*	*No*	*No*
12	Chobham Common, Roundabout Car Park	SU965649	Chobham Common	Yes	Yes	Yes
13	Chobham Common, Staple Hill Car Park	SU973648	Chobham Common	Yes	Yes	Yes
14	Lightwater Country Park	SU915619	Colony Bog & Bagshot Heaths	Yes	Yes	Yes
15	Sandpit Hill	SU936612	Colony Bog & Bagshot Heaths	Yes	Yes	Yes
16	Queens Road, Cowshot Common	SU942572	Colony Bog & Bagshot Heaths	Yes	Yes	Yes
17	B3011 opposite Arrow Lane	SU760575	Hazeley Heath	Yes	Yes	Yes

AP	Name	Grid Reference	Component SSSI	2005	2012	2018
18	Play Area, Springfield Avenue	SU765572	Hazeley Heath	Yes	Yes	Yes
19	South Road	SU850629	Sandhurst to Owlsmoor Bogs & Heaths	Yes	Yes	Yes
20	Off Crowthorne Road	SU838630	Sandhurst to Owlsmoor Bogs & Heaths	Yes	Yes	Yes
21	Salt Box Road	SU981529	Whitmoor Common	Yes	Yes	Yes
22	Burdenshott Road	SU987543	Whitmoor Common	Yes	Yes	Yes
23	Chobham Road	TQ001604	Horsell Common	Yes	Yes	Yes
24	Shore's Road	TQ012603	Horsell Common	Yes	Yes	Yes
25	Wren's Nest Car Park	TQ066587	Ockham & Wisley Commons	Yes	Yes	Yes
26	Currie's Clump – Boldermere Car Park	TQ078586	Ockham & Wisley Commons	Yes	Yes	Yes
27	Layby opposite Windrush House, Chapel Road	SU954556	Ash to Brookwood Heaths	No	Yes	Yes
28	Path Intersection off Sandy Hill Road	SU832493	Bourley & Long Valley	No	Yes	Yes
29	Car Park east of Foresters Arms Pub	SU827527	Bourley & Long Valley	No	Yes	Yes
30	Car Park off B3348/ A3095 roundabout	SU855655	Broadmoor to Bagshot Woods & Heaths	No	Yes	Yes
31	Path intersection adjacent to layby south side of A30	SU827589	Castle Bottom to Yateley & Hawley Common	No	Yes	Yes
32	Second layby on Old Guildford Road	SU900560	Ash to Brookwood Heaths	No	Yes	Yes
Total				26	30	30

Table A4.2: Summary of 2018 tally count data.

AP	Total Adults	Total Children	Total Adults + Children	Total Dogs	Total Adults	Total Children	Total Adults + children	Total Dogs	No. professional dog walking vehicles	Total Groups Interviewed
	Entering				**Exiting**					
1	57	16	73	41	51	6	57	28	2	49
2	37	6	43	12	25	8	33	13	9	15
3	327	90	417	33	110	26	136	15	0	82
4	66	35	101	47	50	40	90	31	2	35
5	109	6	115	58	79	6	85	48	4	40
6	99	16	115	58	68	10	78	59	37	35
8	70	23	93	61	69	14	83	73	1	32
9	42	8	50	31	40	8	48	26	0	29
10	39	2	41	24	40	2	42	24	0	14
12	49	5	54	34	46	3	49	37	0	23
13	36	1	37	12	37	8	45	15	0	15
14	88	14	102	64	63	15	78	58	3	30
15	62	5	67	63	35	3	38	41	0	26
16	42	1	43	42	49	12	61	45	4	26
17	45	3	48	35	28	3	31	22	0	16
18	38	16	54	28	19	14	33	18	0	28

AP	Total Adults	Total Children	Total Adults + Children	Total Dogs	Total Adults	Total Children	Total Adults + children	Total Dogs	No. professional dog walking vehicles	Total Groups Interviewed
	Entering				Exiting					
19	113	2	115	48	89	4	93	47	1	33
20	96	5	101	75	64	5	69	58	5	38
21	222	18	240	169	164	12	176	149	11	51
22	70	5	75	59	47	0	47	44	4	20
23	107	20	127	100	102	5	107	98	3	79
24	355	70	425	366	328	78	406	257	3	93
25	46	13	59	54	27	2	29	36	9	27
26	62	16	78	60	44	10	54	35	10	32
27	29	4	33	36	26	0	26	36	2	17
28	36	1	37	34	42	3	45	36	0	26
29	82	11	93	64	64	8	72	55	0	22
30	93	14	107	84	75	9	84	61	3	29
31	12	1	13	6	17	2	19	7	0	6
32	44	1	45	49	35	0	35	47	0	14
ALL	2,573	428	3,001	1,847	1,933	316	2,249	1,159	113	982

Table A4.3: Percentage change in footfall, 2012/13 to 2018 (entries).

AP	Name	2012/13	Hourly rate*	2018	Hourly rate**	% change
1	Mytchett Place Road	361	11.3	73	4.6	-59.6%
2	Nightingale Road/A323	73	2.3	43	2.7	+17.8%
3	The Lookout	801	25.0	417	26.1	+4.1%
4	Top of Bracknell Road	121	3.8	101	6.3	+66.9%
5	Top of King's Ride	204	6.4	115	7.2	+12.7%
6	Bourley Road	189	5.9	115	7.2	+21.7%
8	North Entrance to Warren Heath	45	1.4	93	5.8	+313.3%
9	Car Park off Cricket Hill Lane	97	3.0	50	3.1	+3.1%
10	Car Park off A30, Haywards Cottage	154	4.8	41	2.6	-46.8%
12	Chobham Common, Roundabout Car Park	299	9.3	54	3.4	-63.9%
13	Chobham Common, Staple Hill Car Park	106	3.3	37	2.3	-30.2%
14	Lightwater Country Park	138	4.3	102	6.4	+47.8%
15	Sandpit Hill	277	8.7	67	4.2	-51.6%
16	Queens Road, Cowshot Common	136	4.3	43	2.7	-36.8%
17	B3011 opposite Arrow Lane	107	3.3	48	3.0	-10.3%
18	Play Area, Springfield Avenue	106	3.3	54	3.4	+1.9%
19	South Road	246	7.7	115	7.2	-6.5%
20	Off Crowthorne Road	198	6.2	101	6.3	+2.0%
21	Salt Box Road	542	16.9	240	15.0	-11.4%
22	Burdenshott Road	128	4.0	75	4.7	+17.2%
23	Chobham Road	528	16.5	127	7.9	-51.9%
24	Shore's Road	684	21.4	425	26.6	+24.3%
25	Wren's Nest Car Park	120	3.8	59	3.7	-1.7%
26	Currie's Clump – Boldermere Car Park	111	5.6	78	4.9	-12.2%
27	Layby opposite Windrush House, Chapel Road	67	2.1	33	2.1	-1.5%
28	Path Intersection off Sandy Hill Road	33	1.0	37	2.3	+124.2%
29	Car Park east of Foresters Arms Pub	98	3.1	93	5.8	+89.8%
30	Car Park off B3348/ A3095 roundabout	213	6.7	107	6.7	+0.5%
31	Path intersection adjacent to layby south side of A30	103	3.2	13	0.8	-74.8%
32	Second layby on Old Guildford Road	124	3.9	45	2.8	-27.4%
All Access Points		**6,409**	**6.8**	**3,001**	**6.3**	**-7.5%**

*32 hours at each AP except for AP26 (20 hours)

**16 hours at each AP

Table A4.4: Percentage change in footfall, 2012 to 2018 (exits).

AP	Name	2012/13	Hourly rate*	2018	Hourly rate**	% change
1	Mytchett Place Road	279	8.7	57	3.6	-59.1%
2	Nightingale Road/A323	54	1.7	33	2.1	22.2%
3	The Lookout	616	19.3	136	8.5	-55.8%
4	Top of Bracknell Road	108	3.4	90	5.6	+66.7%
5	Top of King's Ride	197	6.2	85	5.3	-13.7%
6	Bourley Road	222	6.9	78	4.9	-29.7%
8	North Entrance to Warren Heath	30	0.9	83	5.2	+453.3%
9	Car Park off Cricket Hill Lane	64	2.0	48	3.0	+50.0%
10	Car Park off A30, Haywards Cottage	82	2.6	42	2.6	2.4%
12	Chobham Common, Roundabout Car Park	275	8.6	49	3.1	-64.4%
13	Chobham Common, Staple Hill Car Park	92	2.9	45	2.8	-2.2%
14	Lightwater Country Park	17	0.5	78	4.9	+817.6%
15	Sandpit Hill	162	5.1	38	2.4	-53.1%
16	Queens Road, Cowshot Common	96	3.0	61	3.8	27.1%
17	B3011 opposite Arrow Lane	87	2.7	31	1.9	-28.7%
18	Play Area, Springfield Avenue	102	3.2	33	2.1	-35.3%
19	South Road	180	5.6	93	5.8	3.3%
20	Off Crowthorne Road	163	5.1	69	4.3	-15.3%
21	Salt Box Road	528	16.5	176	11.0	-33.3%
22	Burdenshott Road	116	3.6	47	2.9	-19.0%
23	Chobham Road	502	15.7	107	6.7	-57.4%
24	Shore's Road	708	22.1	406	25.4	14.7%
25	Wren's Nest Car Park	82	2.6	29	1.8	-29.3%
26	Currie's Clump – Boldermere Car Park	99	5.0	54	3.4	-31.8%
27	Layby opposite Windrush House, Chapel Road	50	1.6	26	1.6	4.0%
28	Path Intersection off Sandy Hill Road	68	2.1	45	2.8	+32.4%
29	Car Park east of Foresters Arms Pub	120	3.8	72	4.5	+20.0%
30	Car Park off B3348/ A3095 roundabout	213	6.7	84	5.3	-21.1%
31	Path intersection adjacent to layby south side of A30	20	0.6	19	1.2	+90.0%
32	Second layby on Old Guildford Road	116	3.6	35	2.2	-39.7%
All Access Points		**5,448**	**5.8**	**2,249**	**4.7**	**-18.5%**

*32 hours at each AP except for AP26 (20 hours)

**16 hours at each AP

Table A4.5: Percentage change in footfall*, 2005 to 2018 (entries).

AP	Name	2005	2018	% change
1	Mytchett Place Road	112	73	-34.8%
2	Nightingale Road/A323	39	43	10.3%
3	The Lookout	538	417	-22.5%
4	Top of Bracknell Road	84	101	20.2%
5	Top of King's Ride	116	115	-0.9%
6	Bourley Road	143	115	-19.6%
8	North Entrance to Warren Heath	61	93	52.5%
9	Car Park off Cricket Hill Lane	85	50	-41.2%
10	Car Park off A30, Haywards Cottage	62	41	-33.9%
12	Chobham Common, Roundabout Car Park	124	54	-56.5%
13	Chobham Common, Staple Hill Car Park	38	37	-2.6%
14	Lightwater Country Park	242	102	-57.9%
15	Sandpit Hill	100	67	-33.0%
16	Queens Road, Cowshot Common	68	43	-36.8%
17	B3011 opposite Arrow Lane	33	48	45.5%
18	Play Area, Springfield Avenue	47	54	14.9%
19	South Road	60	115	91.7%
20	Off Crowthorne Road	121	101	-16.5%
21	Salt Box Road	299	240	-19.7%
22	Burdenshott Road	61	75	23.0%
23	Chobham Road	255	127	-50.2%
24	Shore's Road	400	425	6.3%
25	Wren's Nest Car Park	70	59	-15.7%
26	Currie's Clump – Boldermere Car Park	137	78	-43.1%
All Access Points		**3,295**	**2,673**	**-18.9%**

*16 hours at each AP in both years, therefore no need to standardise by hourly rate

Table A4.6: Percentage change in footfall*, 2005 to 2018 (exits).

AP	Name	2005	2018	% change
1	Mytchett Place Road	99	57	-42.4%
2	Nightingale Road/A323	28	33	17.9%
3	The Lookout	528	136	-74.2%
4	Top of Bracknell Road	62	90	45.2%
5	Top of King's Ride	118	85	-28.0%
6	Bourley Road	154	78	-49.4%
8	North Entrance to Warren Heath	73	83	13.7%
9	Car Park off Cricket Hill Lane	99	48	-51.5%
10	Car Park off A30, Haywards Cottage	46	42	-8.7%
12	Chobham Common, Roundabout Car Park	102	49	-52.0%
13	Chobham Common, Staple Hill Car Park	33	45	36.4%
14	Lightwater Country Park	134	78	-41.8%
15	Sandpit Hill	54	38	-29.6%
16	Queens Road, Cowshot Common	58	61	5.2%
17	B3011 opposite Arrow Lane	23	31	34.8%
18	Play Area, Springfield Avenue	50	33	-34.0%
19	South Road	62	93	50.0%
20	Off Crowthorne Road	109	69	-36.7%
21	Salt Box Road	240	176	-26.7%
22	Burdenshott Road	43	47	9.3%
23	Chobham Road	190	107	-43.7%
24	Shore's Road	326	406	24.5%
25	Wren's Nest Car Park	58	29	-50.0%
26	Currie's Clump – Boldermere Car Park	134	54	-59.7%
All Access Points		**2,823**	**1,968**	**-30.3%**

*16 hours at each AP in both years, therefore no need to standardise by hourly rate

Table A4.7: Dogs off leads/paths by access point.

AP	Component SSSI	No. groups with dogs	% groups with at least one dog off lead	%. groups whose dogs left paths
1	Ash to Brookwood Heaths	36	36.1%	61.1%
2	Ash to Brookwood Heaths	11	36.4%	27.3%
3	Broadmoor to Bagshot Woods & Heaths	20	25.0%	70.0%
4	Broadmoor to Bagshot Woods & Heaths	27	37.0%	55.6%
5	Broadmoor to Bagshot Woods & Heaths	28	53.6%	64.3%
6	Bourley & Long Valley	25	72.0%	60.0%
8	Bramshill	24	29.2%	54.2%
9	Castle Bottom to Yateley & Hawley Common	19	47.4%	26.3%
10	Castle Bottom to Yateley & Hawley Common	9	88.9%	66.7%
12	Chobham Common	18	16.7%	77.8%
13	Chobham Common	9	77.8%	33.3%
14	Colony Bog & Bagshot Heaths	21	76.2%	14.3%
15	Colony Bog & Bagshot Heaths	21	90.5%	52.4%
16	Colony Bog & Bagshot Heaths	16	43.8%	25.0%
17	Hazeley Heath	13	23.1%	92.3%
18	Hazeley Heath	22	68.2%	13.6%
19	Sandhurst to Owlsmoor Bogs & Heaths	18	66.7%	55.6%

AP	Component SSSI	No. groups with dogs	% groups with at least one dog off lead	%. groups whose dogs left paths
20	Sandhurst to Owlsmoor Bogs & Heaths	34	41.2%	85.3%
21	Whitmoor Common	48	39.6%	87.5%
22	Whitmoor Common	18	33.3%	100.0%
23	Horsell Common	74	62.2%	70.3%
24	Horsell Common	80	83.8%	61.3%
25	Ockham & Wisley Commons	21	85.7%	81.0%
26	Ockham & Wisley Commons	26	42.3%	38.5%
27	Ash to Brookwood Heaths	16	75.0%	68.8%
28	Bourley & Long Valley	21	38.1%	71.4%
29	Bourley & Long Valley	19	36.8%	36.8%
30	Broadmoor to Bagshot Woods & Heaths	26	34.6%	96.2%
31	Castle Bottom to Yateley & Hawley Common	5	60.0%	80.0%
32	Ash to Brookwood Heaths	13	92.3%	92.3%
Total		**738**	**100%**	**100%**

Table A4.8: Catchment analysis by access point.

AP	Component SSSI	Count 2018*	75th percentile 2018	75th percentile 2012/13	Count 2018*	75th percentile 2018	75th percentile 2012/13
		Walking			Driving		
1	Ash to Brookwood Heaths	10	0.6 km	0.6 km	33	3.6 km	2.6 km
2	Ash to Brookwood Heaths	7	-	0.3 km	6	-	2.8 km
3	Broadmoor to Bagshot Woods & Heaths	1	-	-	57	30.9 km	15.9 km
4	Broadmoor to Bagshot Woods & Heaths	15	0.5 km	0.5 km	13	1.8 km	6.1 km
5	Broadmoor to Bagshot Woods & Heaths	6	-	0.8 km	26	3.6 km	2.7 km
6	Bourley & Long Valley	2	-	-	25	4.7 km	4.6 km
8	Bramshill	2	-	-	26	7.8 km	8.8 km
9	Castle Bottom to Yateley & Hawley Common	7	-	0.8 km	16	2.6 km	2.6 km
10	Castle Bottom to Yateley & Hawley Common	3	-	0.8 km	6	-	4.2 km
12	Chobham Common	0	-	-	18	6.5 km	6.6 km
13	Chobham Common	1	-	-	13	7.8 km	10.8 km
14	Colony Bog & Bagshot Heaths	11	1.1 km	0.8 km	15	3 km	3.5 km
15	Colony Bog & Bagshot Heaths	3	-	1.0 km	19	3.5 km	3.8 km
16	Colony Bog & Bagshot Heaths	14	3.3 km	1.0 km	8	-	3.5 km
17	Hazeley Heath	2	-	-	11	3.1 km	1.8 km
18	Hazeley Heath	15	0.2 km	0.3 km	11	8.7 km	-

AP	Component SSSI	Count 2018*	75th percentile 2018	75th percentile 2012/13	Count 2018*	75th percentile 2018	75th percentile 2012/13
		Walking			Driving		
19	Sandhurst to Owlsmoor Bogs & Heaths	16	0.7 km	0.9 km	10	1.9 km	3.6 km
20	Sandhurst to Owlsmoor Bogs & Heaths	2	-	-	23	1.7 km	1.9 km
21	Whitmoor Common	1	-	0.7 km	44	2.3 km	2.8 km
22	Whitmoor Common	1	-	-	14	3.4 km	3.8 km
23	Horsell Common	4	-	-	60	3.6 km	4.0 km
24	Horsell Common	1	-	-	84	4.7 km	4.4 km
25	Ockham & Wisley Commons	0	-	-	16	11.3 km	6.7 km
26	Ockham & Wisley Commons	0	-	-	13	13.2 km	16.2 km
27	Ash to Brookwood Heaths	4	-	1.2 km	11	4.2 km	4.1 km
28	Bourley & Long Valley	20	0.5 km	0.8 km	1	-	-
29	Bourley & Long Valley	0	-	-	16	2.6 km	3.1 km
30	Broadmoor to Bagshot Woods & Heaths	0	-	-	25	4.3 km	4.3 km
31	Castle Bottom to Yateley & Hawley Common	0	-	3.0 km	5	-	4.4 km
32	Ash to Brookwood Heaths	2	-	-	11	2.7 km	3.1 km

*Those with counts less than 10 are omitted from the analysis (both years)

Table A4.9: Visitor awareness by access point.

AP	Component SSSI	Aware of SPA Designation	Aware of TBH Partnership
1	Ash to Brookwood Heaths	67.3%	28.6%
2	Ash to Brookwood Heaths	86.7%	26.7%
3	Broadmoor to Bagshot Woods & Heaths	68.3%	23.2%
4	Broadmoor to Bagshot Woods & Heaths	82.9%	34.3%
5	Broadmoor to Bagshot Woods & Heaths	97.5%	47.5%
6	Bourley & Long Valley	77.1%	22.9%
8	Bramshill	81.3%	43.8%
9	Castle Bottom to Yateley & Hawley Common	82.8%	27.6%
10	Castle Bottom to Yateley & Hawley Common	78.6%	28.6%
12	Chobham Common	82.6%	56.5%
13	Chobham Common	93.3%	40%
14	Colony Bog & Bagshot Heaths	93.3%	53.3%
15	Colony Bog & Bagshot Heaths	92.3%	42.3%
16	Colony Bog & Bagshot Heaths	84.6%	50%
17	Hazeley Heath	87.5%	81.3%
18	Hazeley Heath	82.1%	28.6%
19	Sandhurst to Owlsmoor Bogs & Heaths	66.7%	33.3%
20	Sandhurst to Owlsmoor Bogs & Heaths	94.7%	86.8%
21	Whitmoor Common	94.1%	76.5%
22	Whitmoor Common	95%	95%
23	Horsell Common	94.9%	72.2%
24	Horsell Common	93.5%	38.7%
25	Ockham & Wisley Commons	85.2%	44.4%
26	Ockham & Wisley Commons	71.9%	28.1%
27	Ash to Brookwood Heaths	100%	76.5%
28	Bourley & Long Valley	92.3%	61.5%
29	Bourley & Long Valley	100%	86.4%
30	Broadmoor to Bagshot Woods & Heaths	96.6%	55.2%
31	Castle Bottom to Yateley & Hawley Common	100%	50%
32	Ash to Brookwood Heaths	78.6%	50%

Table A4.10: Automated people counter locations.

Ref	Name	Grid Reference	2018 AP
SAMM001	Bullswater Common - North Corrall	SU 95585 54854	
SAMM002	Broadmoor Bottom - Owlsmoor	SU 85565 62845	AP30
SAMM003	Horsell Common Road	SU 99242 60303	
SAMM004	Bullswater Common - South Corrall	SU 95358 54469	
SAMM005	Track off Mytchett Place Road / Ash Ranges	SU 89398 54939	AP1
SAMM006	Bisley	SU 94751 59598	
SAMM007	Aldershot Road Car Park, Forest of Eversley	SU 82713 52735	AP29
SAMM008	Path off Henley Gate / Ash Ranges	SU 93421 53869	
SAMM009	Whitmoor Common - A320	SU 99521 53840	
SAMM010	Whitmoor Common - Salt Box Road	SU 98327 53019	AP21
SAMM011	Lightwater Country Park - Viewpoint	SU 91083 61528	
SAMM012	Brentmoor Heath	SU 94303 61063	
SAMM013	Track off Gapemouth Road - Ash Ranges	SU 91474 56188	
SAMM014	Pedestrian Entrance, Forest of Eversley	SU 82124 53444	
SAMM015	Pedestrian Entrance, Red Road - Brentmoor	SU 91816 61158	
SAMM016	Yateley Common - Vigo Lane	SU 81231 59482	
SAMM017	Track off A324 - Ash Ranges	SU 94393 54321	
SAMM018	End of Florence Road, Forest of Eversley	SU 81805 53148	
SAMM019	Track off Mytchett Place Road - Ash Ranges	SU 91368 55254	
SAMM020	Track off Mytchett Place Road (inside flags)	SU 90522 54606	
SAMM021	Top of Nightingale Road - Ash Ranges	SU 90410 51404	AP2
SAMM022	Top of King's Ride - Barossa	SU 87531 62139	AP5
SAMM023	Whitmoor Common - Path to St Mary's Church	SU 97864 53686	
SAMM024	Chobham Common - Clearmount	SU 97123 63834	
SAMM025	Wildmoor Heath - Thibet Road	SU 84203 62199	AP19
SAMM026	Chobham Common - Fishpool	SU 99333 63623	
SAMM027	Heath Warren Wood - St Neots Road	SU 76619 61286	AP8
SAMM028	Track off Gapemouth Road - Ash Ranges	SU 91964 56112	
SAMM029	Yateley Common - A30	SU 82468 59020	
SAMM030	Heath Warren Wood - Bramshill Depot	SU 76192 60612	
SAMM031	Crowthorne - Devils Hwy	SU 86113 64534	
SAMM032	Horsell Common - 6 ways car park	TQ 01181 60446	AP24
SAMM033	Ockham Common	TQ 08386 58072	
SAMM034	Chobham Common - Burma Road	SU 97604 65523	
SAMM035	Lightwater CP - Leisure Centre	SU 91570 61977	AP14
SAMM036	Chobham Common - Staple Hill	SU 97392 64862	AP13

Table A4.11: Automated people counter results 2016-2018.

Ref	2018 AP	Count Total 2016-2018	Total Count Hours*	Hourly Footfall
SAMM016		1,975,376	23,040	85.7
SAMM032	AP24	730,491	22,536	32.4
SAMM022	AP5	163,765	12,456	13.1
SAMM005	AP1	147,742	12,480	11.8
SAMM018		145,579	12,432	11.7
SAMM007	AP29	123,430	12,432	9.9
SAMM011		161,489	18,888	8.5
SAMM035	AP14	129,605	23,040	5.6
SAMM028		51,779	12,456	4.2
SAMM013		25,269	12,456	2.0
SAMM023		43,470	22,704	1.9
SAMM030		41,413	22,992	1.8
SAMM002	AP30	37,552	21,528	1.7
SAMM036	AP13	38,650	23,040	1.7
SAMM020		19,675	12,336	1.6
SAMM017		18,433	12,408	1.5
SAMM010	AP21	31,136	23,016	1.4
SAMM034		21,989	16,440	1.3
SAMM029		12,523	10,272	1.2
SAMM031		27,208	23,088	1.2
SAMM03		25,976	23,088	1.1
SAMM012		24,642	23,040	1.1
SAMM021	AP2	12,197	12,480	1.0
SAMM014		11,347	12,432	0.9
SAMM08		10,382	12,336	0.8
SAMM06		5,902	10,320	0.6
SAMM01		5,137	10,272	0.5
SAMM04		5,416	12,744	0.4
SAMM019		5,301	13,224	0.4
SAMM015		4,765	12,360	0.4
SAMM09		7,725	22,272	0.3
SAMM026		5,411	23,040	0.2
SAMM025	AP19	4,392	22,536	0.2
SAMM024		3,378	23,040	0.1
SAMM033		2,618	22,368	0.1
SAMM027	AP8	860	14,568	0.1

*Based on number of days each counter was deployed between 01/01/16 and 19/08/18, full days only. Variation is due to counters being deployed in different years, counter malfunctions, and theft/vandalism.

Table A4.12: Selected* car park transect locations and results, January 2016 – August 2018.

2018 AP	SSSI	Transect / Location no.	All Vehicles	Commercial Dog Walking Vehicles
AP3	Broadmoor to Bagshot Woods & Heaths	T3 / L7	3805	10
AP26	Ockham & Wisley Commons	T4 / L28	831	2
AP24	Horsell Common	T4 / L24	625	6
AP14	Colony Bog & Bagshot Heaths	T6 / L29	560	3
AP21	Whitmoor Common	T5 / L5	531	5
AP22	Whitmoor Common	T5 / L2	410	2
AP30	Broadmoor to Bagshot Woods & Heaths	T3 / L11	350	3
AP12	Chobham Common	T4 / L3	346	3
AP23	Horsell Common	T4 / L23	285	7
AP6	Bourley & Long Valley	T1 / L7 and 8	277	0
AP20	Sandhurst to Owlsmoor Bogs & Heaths	T3 / L15	249	1
AP32	Ash to Brookwood Heaths	T6 / L13	222	6
AP2	Ash to Brookwood Heaths	T5 /L25	193	0
AP1	Ash to Brookwood Heaths	T6 / L1	192	3
AP29	Bourley & Long Valley	T1 / L18	163	5
AP8	Bramshill	T2 / L12	138	0
AP13	Chobham Common	T4 / L8	87	1
AP9	Castle Bottom to Yateley & Hawley Common	T2 / L30	68	1
AP17	Hazeley Heath	T2 / L1	56	2
AP27	Ash to Brookwood Heaths	T5 / L12	39	0
AP10	Castle Bottom to Yateley & Hawley Common	T2 / L34	37	0
AP19	Sandhurst to Owlsmoor Bogs & Heaths	T3 / L18	32	1
AP31	Castle Bottom to Yateley & Hawley Common	T2 / L21	9	0
AP4	Broadmoor to Bagshot Woods & Heaths	No match		
AP5	Broadmoor to Bagshot Woods & Heaths	No match		
AP15	Colony Bog & Bagshot Heaths	No match		
AP16	Colony Bog & Bagshot Heaths	No match		
AP18	Hazeley Heath	No match		
AP25	Ockham & Wisley Commons	No match		
AP28	Bourley & Long Valley	No match		

*Locations matching 2018 access points only

Appendix 5
Implemented SANGs (November 2018)

Table A5.1: Implemented SANGs (November 2018)

SANG Name	Local Authority
Ambarrow Court / Ambarrow Hill	Bracknell Forest
Amen Corner North	
Englemere Pond	
Horseshoe Lake	
Lily Hill Park	
Bracknell Forest	
Part of Great Hollands Recreation Ground	
Popes Meadow	
The Cut Countryside Corridor	
Brooklands Community Park	Elmbridge
Ash Green Meadows	Guildford
Chantry Wood	
Effingham Common	
Esher Common	
Lakeside	
Riverside Nature reserve and Parsonage water meadows	
Bassetts Mead (Hook)	Hart
Bramshot Farm	
Clarks Farm / Swan Lakes (Yateley)	
Hawley Meadows (Hawley)	
Hitches Lane - Edenbrook Country Park (Fleet)	
QEB Crookham Park (Fleet)	
QEII Fields Dilly Lane (Hartley Wintney)	
Allen's Field	Windsor and Maidenhead
Franklands Drive	Runnymede
Hare Hill	
Homewood Park	
Ottershaw Memorial Park/Queenswood/Ether Hill	
St Anns Hill	
Timber Hill/Chaworth Copse/Ottershaw Chase	
Aldershot Urban Extension/Wellesley Woodlands	Rushmoor
Rowhill nature reserve	
Southwood Woodlands	
Chobham Place Woods	Surrey Heath
Chobham Water Meadows	
Clewborough House School	
Diamond Ridge Woods	

Notcutts	
Shepherds Meadow, Sandhurst	
Swan Lakes	
Farnham Park	Waverley
Brookwood County Park	
Heather Farm	
Horsell (Woodham) Common	Woking
Martins Press	
While Rose Lane	
Buckhurst Meadows, London Road, Wokingham	
Clares Green Field, Croft Road, Spencers Wood	
Extension to Keephatch Woods, Binfield Road, Wokingham	
Hazebrook Meadows	
Kentwood Meadows, Warren House Rd, Wokingham	Wokingham
Langley Mead (Loddon), Hyde End Road, Shinfield	
Mays Farm Meadows	
Old Forest Road Meadows	
Peacock Meadows	
Rooks Nest Wood, Barkham Ride, Barkham	
Total: 56	

Appendix 6

Suggested Locations for Future Targeting of SAMM Measures

Table A6.1: Suggested locations for future targeting of SAMM measures

AP	Name	SSSI	Increase in:		Relatively low % of:		Relatively low awareness of:	
			Footfall*	Commercial Dog Walking Vehicles	Dogs on leads	Dogs on paths	TBH SPA designation	TBH Partnership
1	Mytchett Place Road	Ash to Brookwood Heaths		X			X	X
2	Nightingale Road	Ash to Brookwood Heaths		X				X
3	The Lookout	Broadmoor to Bagshot Woods & Heaths					X	X
4	Top of Bracknell Road	Broadmoor to Bagshot Woods & Heaths	X	X				
5	Top of King's Ride	Broadmoor to Bagshot Woods & Heaths		X				
6	Bourley Road	Bourley & Long Valley		X (particularly high)			X	X
8	North Entrance to Warren Heath	Bramshill	X					
9	Cricket Hill Lane	Castle Bottom to Yateley & Hawley Commons						X
10	Car Park off A30	Castle Bottom to Yateley & Hawley Commons			X			X
12	Chobham Common	Chobham Common						
13	Staple Hill	Chobham Common						
14	Lightwater Country Park	Colony Bog & Bagshot Heaths	X	X				
15	Sandpit Hill	Colony Bog & Bagshot Heaths			X			

16	Queen's Road	Colony Bog & Bagshot Heaths		X				
17	B3011 opp. Arrow Lane	Hazeley Heath				X		
18	Springfield Avenue	Hazeley Heath						X
19	South Road	Sandhurst to Owlsmoor Bogs & Heaths	X				X	
20	Off Crowthorne Road	Sandhurst to Owlsmoor Bogs & Heaths		X				
21	Salt Box Road	Whitmoor Common		X (particularly high)		X		
22	Burdenshott Road	Whitmoor Common		X		X		
23	Chobham Road	Horsell Common						
24	Shore's Road	Horsell Common		X	X			
25	Wren's Nest	Ockham & Wisley Commons		X	X			
26	Currie's Clump	Ockham & Wisley Commons		X (particularly high)			X	X
27	Chapel Road	Ash to Brookwood Heaths		X				
28	Sandy Hill Road	Bourley & Long Valley	X					
29	Car Park east of Foresters Arms	Bourley & Long Valley	X					
30	Car Park off B3348/A3095	Broadmoor to Bagshot Woods & Heaths		X		X		
31	Layby south of A30	Castle Bottom to Yateley & Hawley Commons						
32	Layby on Old Guildford Road	Ash to Brookwood Heaths				X	X	

Increase of 50% or greater since 2005 and/or 2012/13
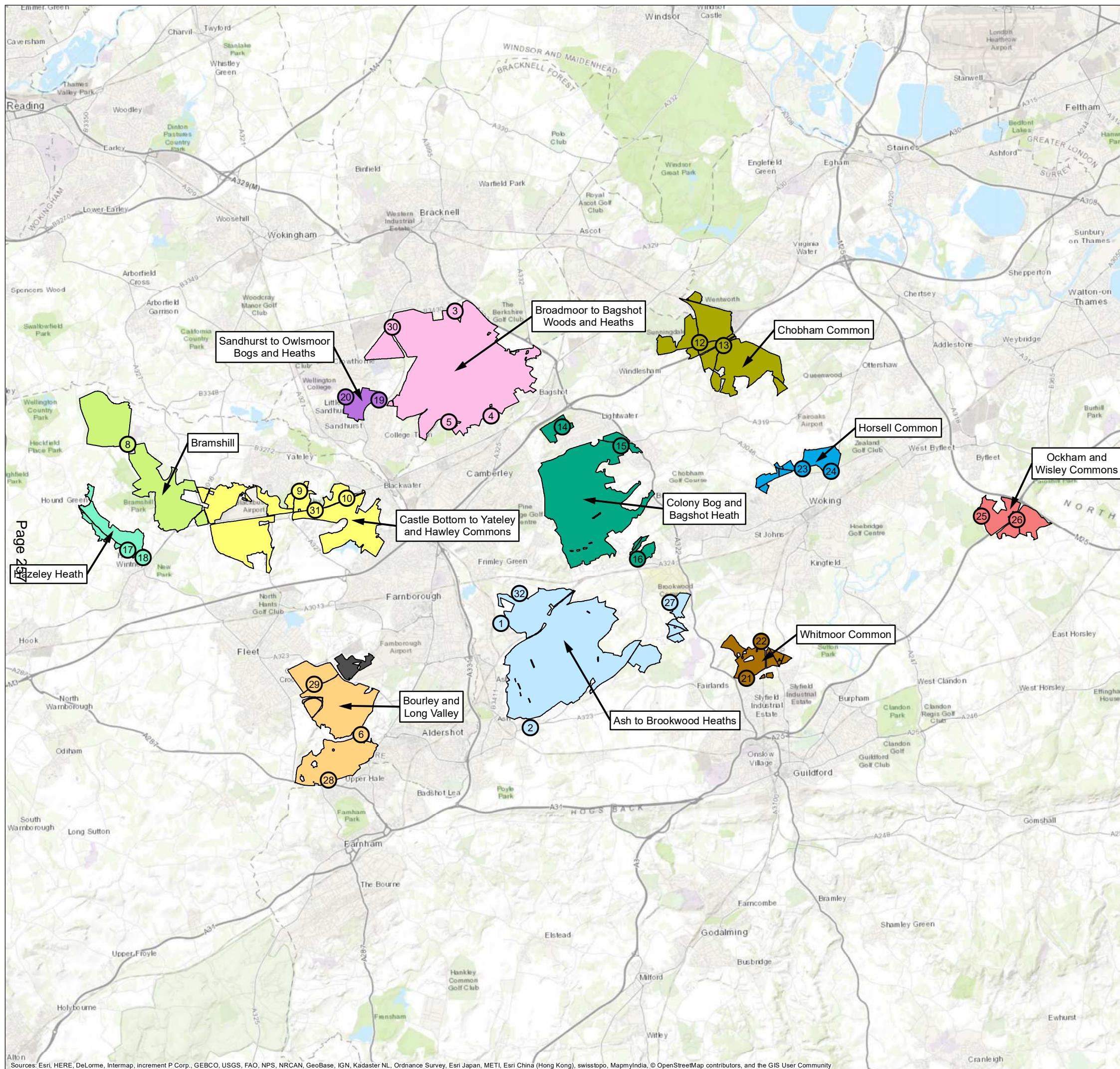
MAP 1   Access Point Locations and the Thames Basin Heaths SPA

KEY

① Access points

Thames Basin Heaths SPA Components

- Ash to Brookwood Heaths
- Bourley and Long Valley
- Bramshill
- Broadmoor to Bagshot Woods and Heaths
- Castle Bottom to Yateley and Hawley Commons
- Chobham Common
- Colony Bog and Bagshot Heath
- Eelmoor Marsh (no access points)
- Hazeley Heath
- Horsell Common
- Ockham and Wisley Commons
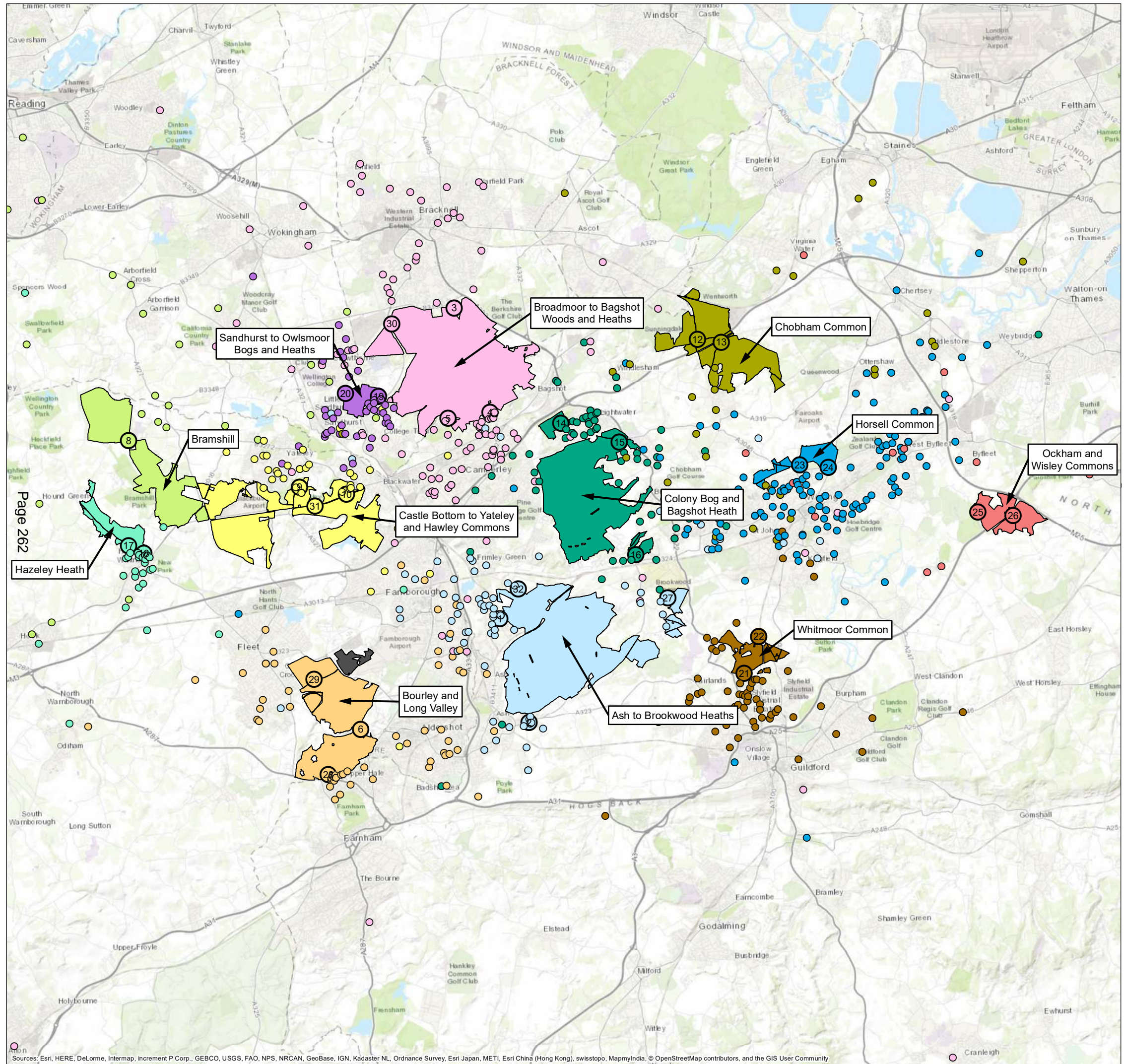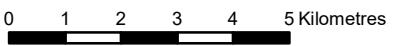- Sandhurst to Owlsmoor Bogs and Heaths
- Whitmoor Common

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

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PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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Map labels: Broadmoor to Bagshot Woods and Heaths; Sandhurst to Owlsmoor Bogs and Heaths; Chobham Common; Bramshill; Horsell Common; Ockham and Wisley Commons; Castle Bottom to Yateley and Hawley Commons; Colony Bog and Bagshot Heath; Hazeley Heath; Whitmoor Common; Bourley and Long Valley; Ash to Brookwood Heaths

MAP 2a Relative Footfall: Entries

KEY

Total entries over 16 hours of survey:

- <50
- 50-100
- 101-150
- 151-200
- >200

Thames Basin Heaths SPA

Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Horsell Common

Bramshill

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths
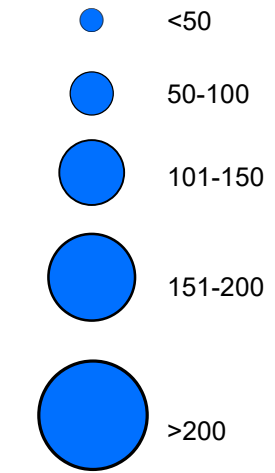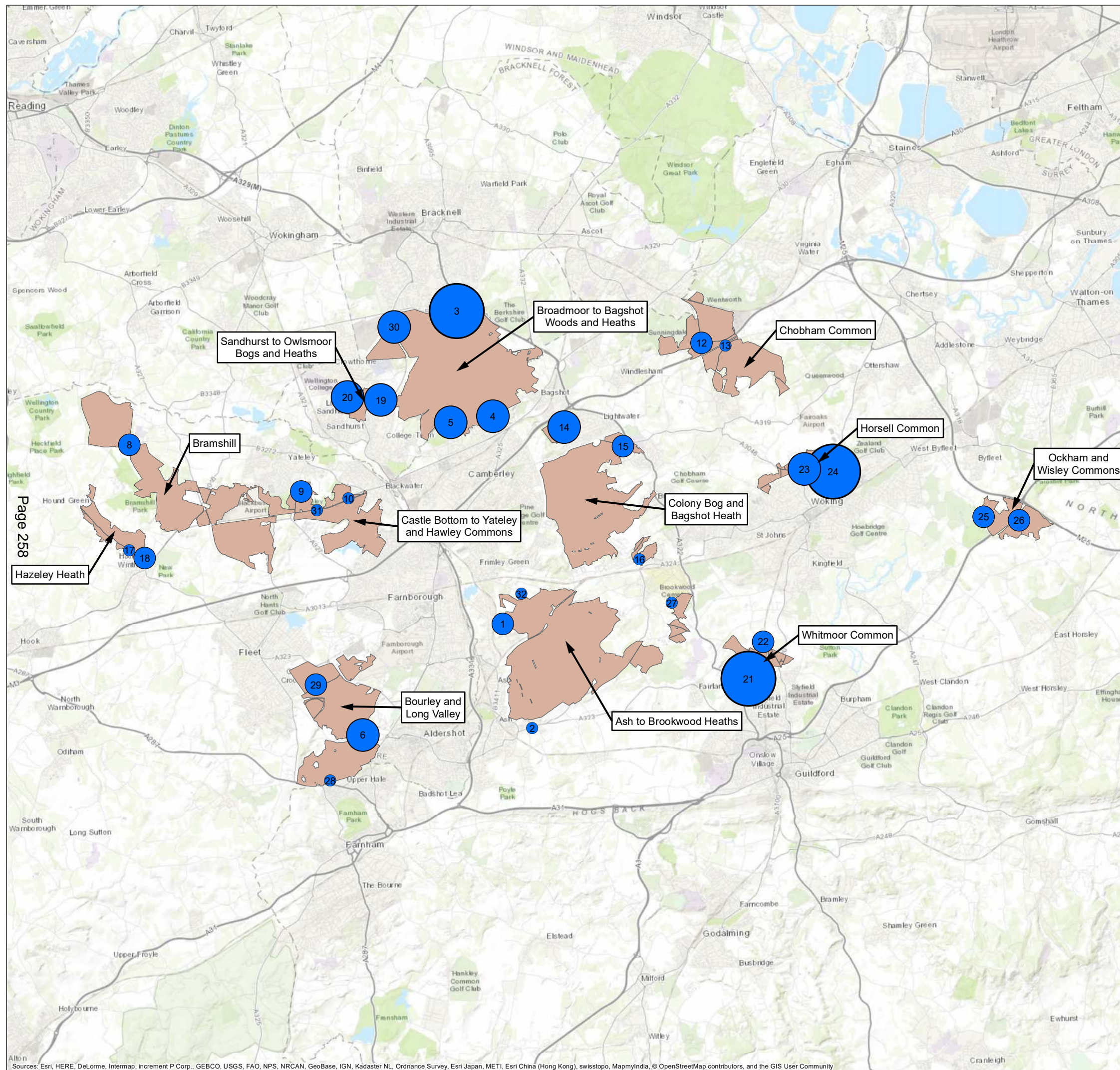
Page 258

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

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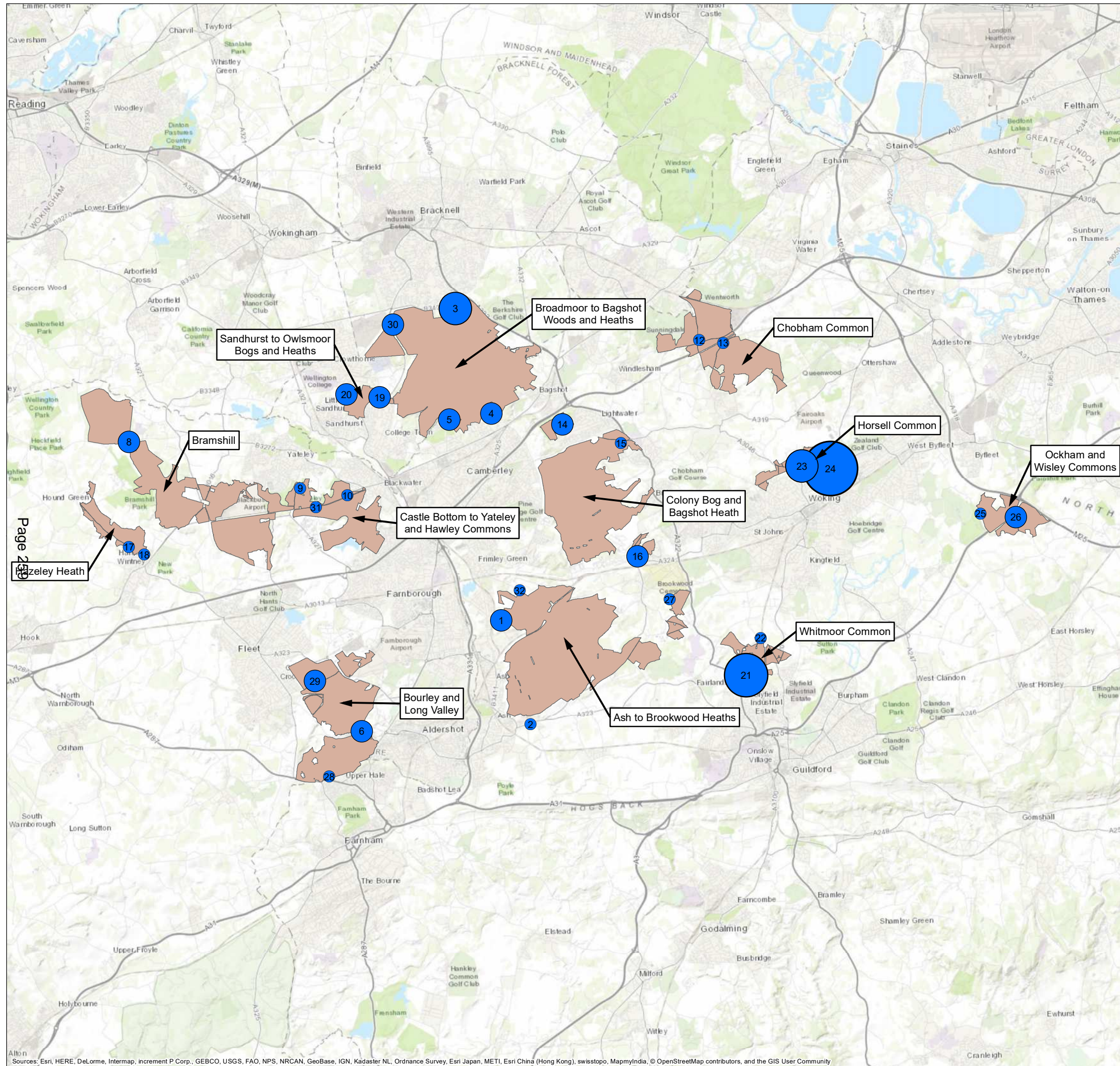
MAP 2b Relative Footfall: Exits

KEY

Total exits over 16 hours of survey:

- <50
- 50-100
- 101-150
- 151-200
- >200

Thames Basin Heaths SPA

Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Horsell Common

Bramshill

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Eelmoor Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

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SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

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MAP 3a Change in Footfall (entries and exits) 2005 - 2018

KEY

- 🔴 Increase
- 🟢 Decrease
- ⚫ Inconclusive – conflicting entry/exit results

- <25% (+/-)
- 25-50% (+/-)
- 51-75% (+/-)
- >76% (+/-)

Thames Basin Heaths SPA

Please refer to Section 3 of accompanying report for detailed explanation of categories used'

Labels on map:
- Broadmoor to Bagshot Woods and Heaths
- Sandhurst to Owlsmoor Bogs and Heaths
- Chobham Common
- Bramshill
- Horsell Common
- Ockham and Wisley Commons
- Castle Bottom to Yateley and Hawley Commons
- Colony Bog and Bagshot Heath
- Hazeley Heath
- Whitmoor Common
- Bourley and Long Valley
- Ash to Brookwood Heaths

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SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

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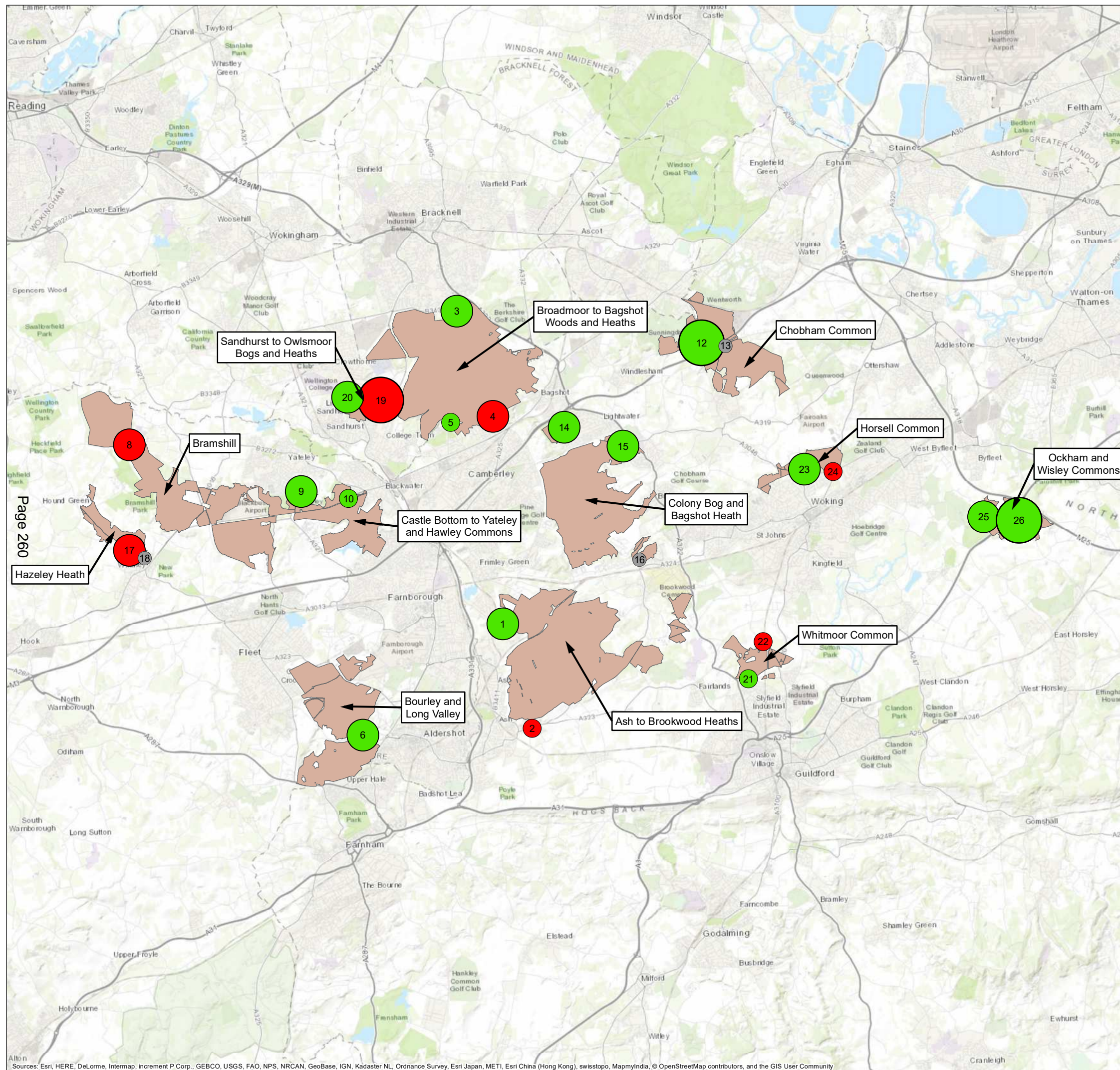
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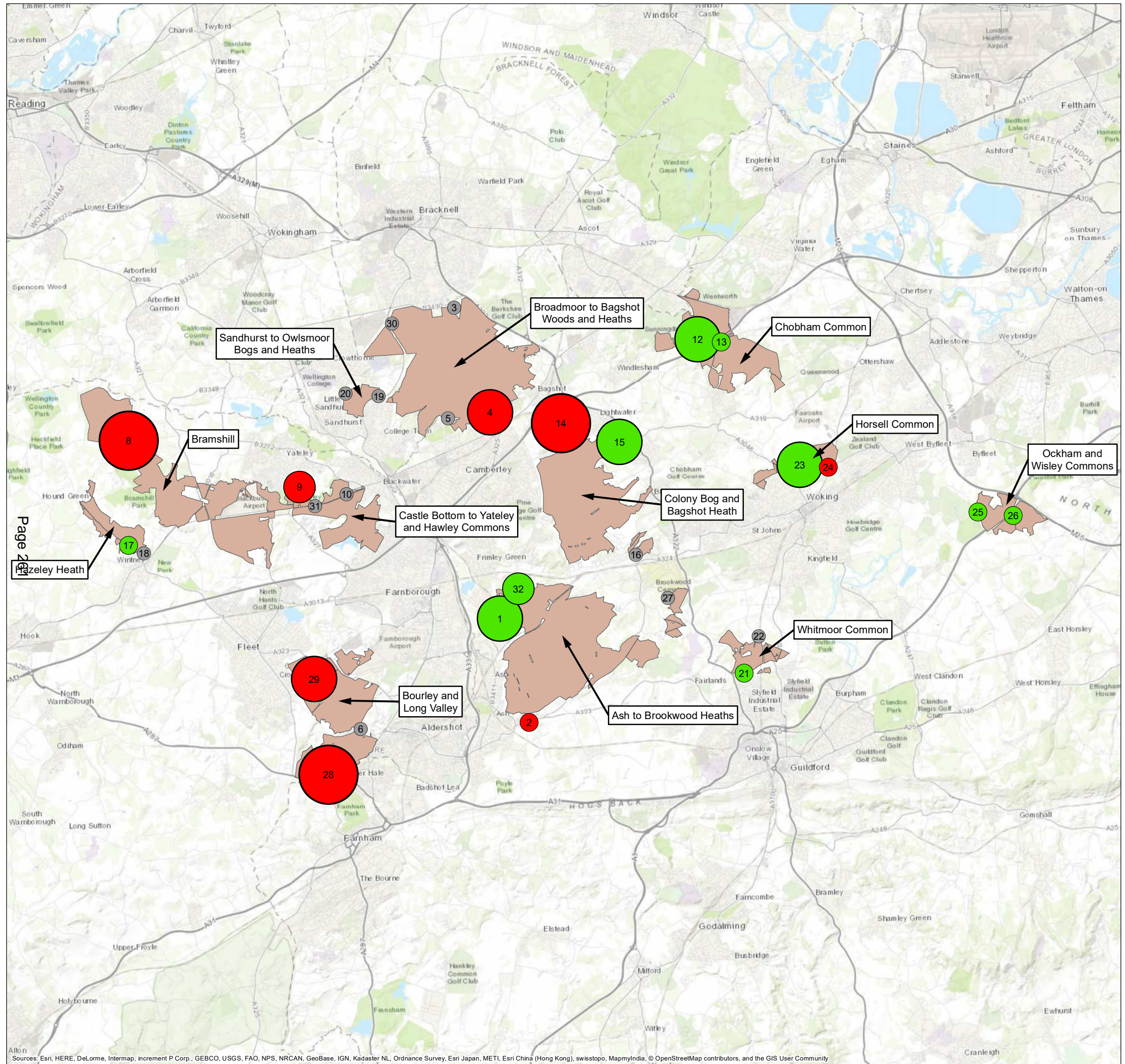
MAP 3b Change in Footfall (entries and exits)
2012/13 - 2018

KEY

- 🔴 Increase
- 🟢 Decrease
- ⚫ Inconclusive – conflicting entry/exit results

- ● <25% (+/-)
- ● 25-50% (+/-)
- ● 51-75% (+/-)
- ● >76% (+/-)

Thames Basin Heaths SPA

Please refer to Section 3 of accompanying report for detailed explanation of categories used'

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

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DATE: November 2018

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Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Bramshill

Horsell Common

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

Page 263

MAP 4a Visitor Origins

KEY

① Access points

• Visitor Origins

Thames Basin Heaths SPA Components

Ash to Brookwood Heaths

Bourley and Long Valley

Bramshill

Broadmoor to Bagshot Woods and Heaths

Castle Bottom to Yateley and Hawley Commons

Chobham Common

Colony Bog and Bagshot Heath

Eelmoor Marsh (no access points)

Hazeley Heath

Horsell Common

Ockham and Wisley Commons

Sandhurst to Owlsmoor Bogs and Heaths

Whitmoor Common

Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Bramshill

Horsell Common

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

Page 262

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

N

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Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

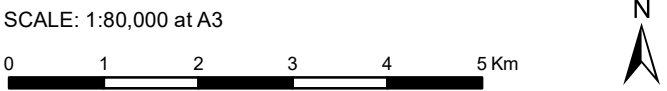Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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MAP 4b Visitor Origins -
Ash to Brookwood Heaths

KEY

① Access points

Mode of transport

● Car/van

● Foot

Thames Basin Heaths SPA Components

Ash to Brookwood Heaths

Ash to
Brookwood
Heaths
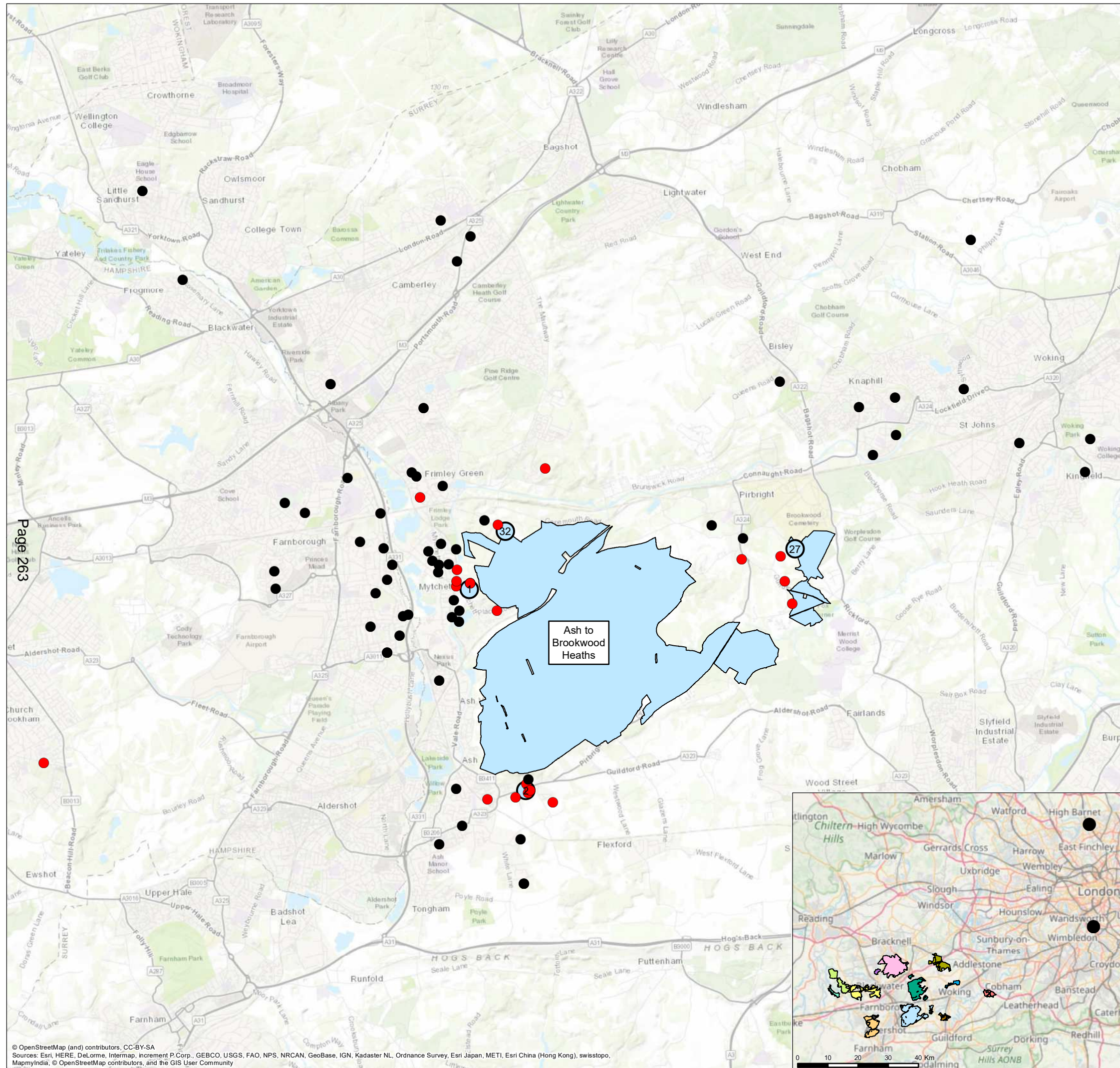
SCALE: 1:70,000 at A3

0   1   2   3   4   5 Km

N

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Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 4c Visitor Origins -
Bourley and Long Valley

KEY

① Access points

Mode of transport

● Bicycle

● Car/van

● Foot

Thames Basin Heaths SPA Components

Bourley and Long Valley
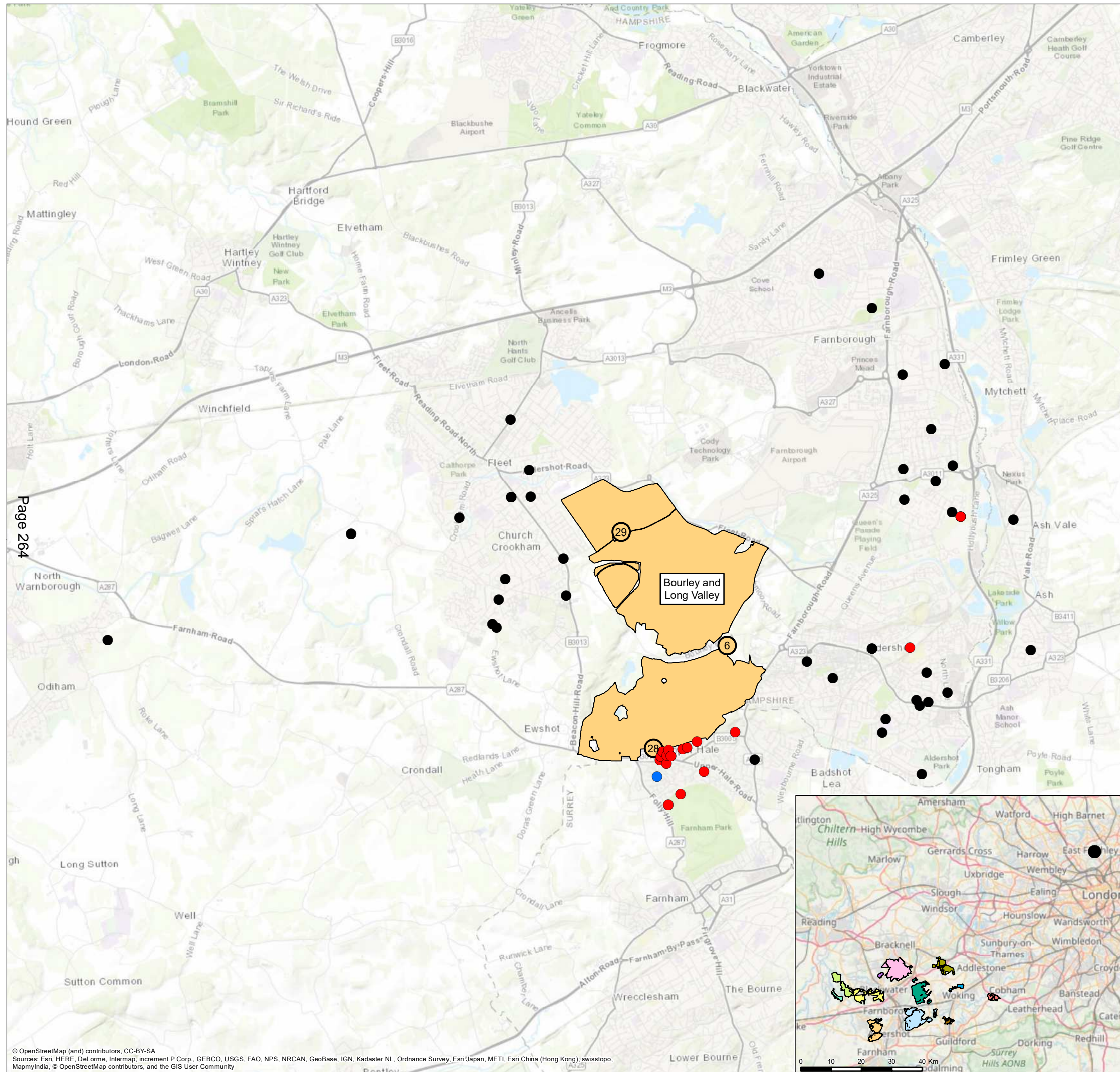
Bourley and
Long Valley

SCALE: 1:60,000 at A3

0   1   2   3   4 Kilometres

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35
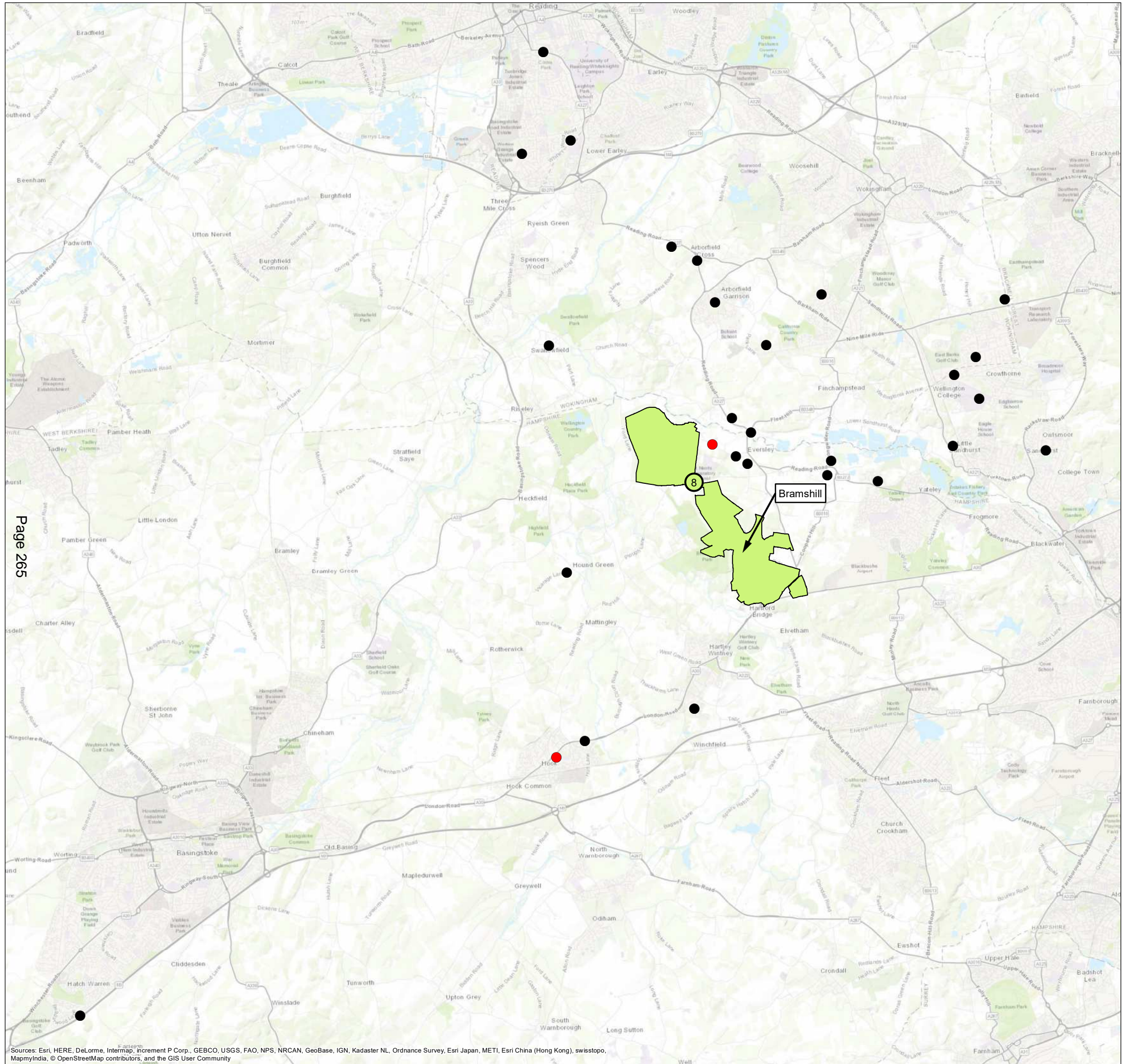
MAP 4d Visitor Origins -
          Bramshill

KEY

①   Access points

Mode of transport

●   Car/van

●   Foot
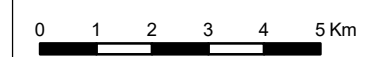
Thames Basin Heaths SPA Components

Bramshill

Bramshill

8

SCALE: 1:95,000 at A3

0   1   2   3   4 Kilometres

N

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Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

Y:\Thames Basin Heaths Visitor Survey\GIS\Map4d_Visitor_Origins_Bramshill_P1835_051116.mxd

P18/35

MAP 4e Visitor Origins - Broadmoor to Bagshot Woods and Heaths

KEY

① Access points

Mode of transport

● Bicycle

● Car/van

● Foot

Thames Basin Heaths SPA Components

Broadmoor to Bagshot Woods and Heaths

SCALE: 1:130,000 at A3

0   2   4   6   8 Km

N

Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018
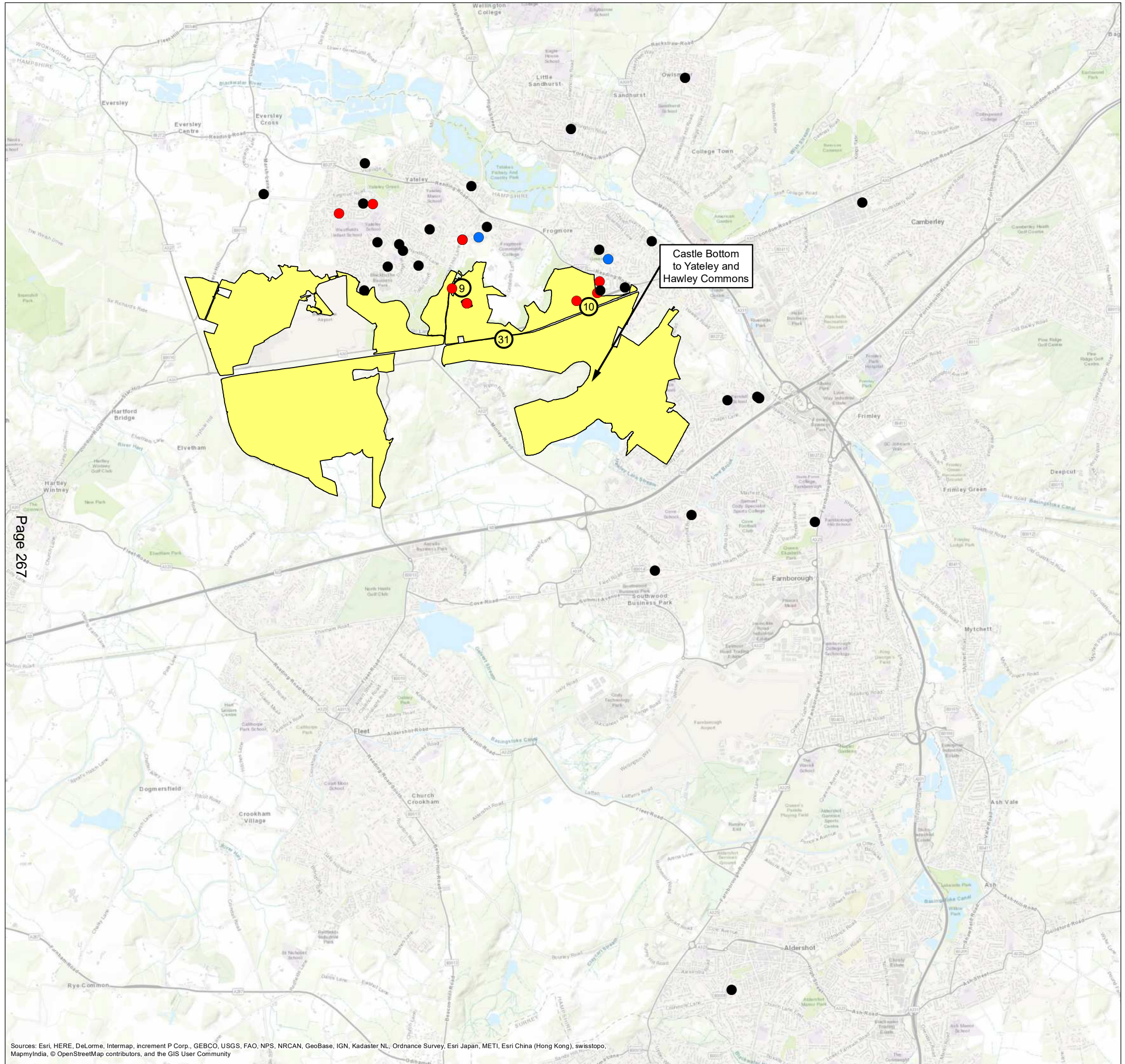
MAP 4f   Visitor Origins -
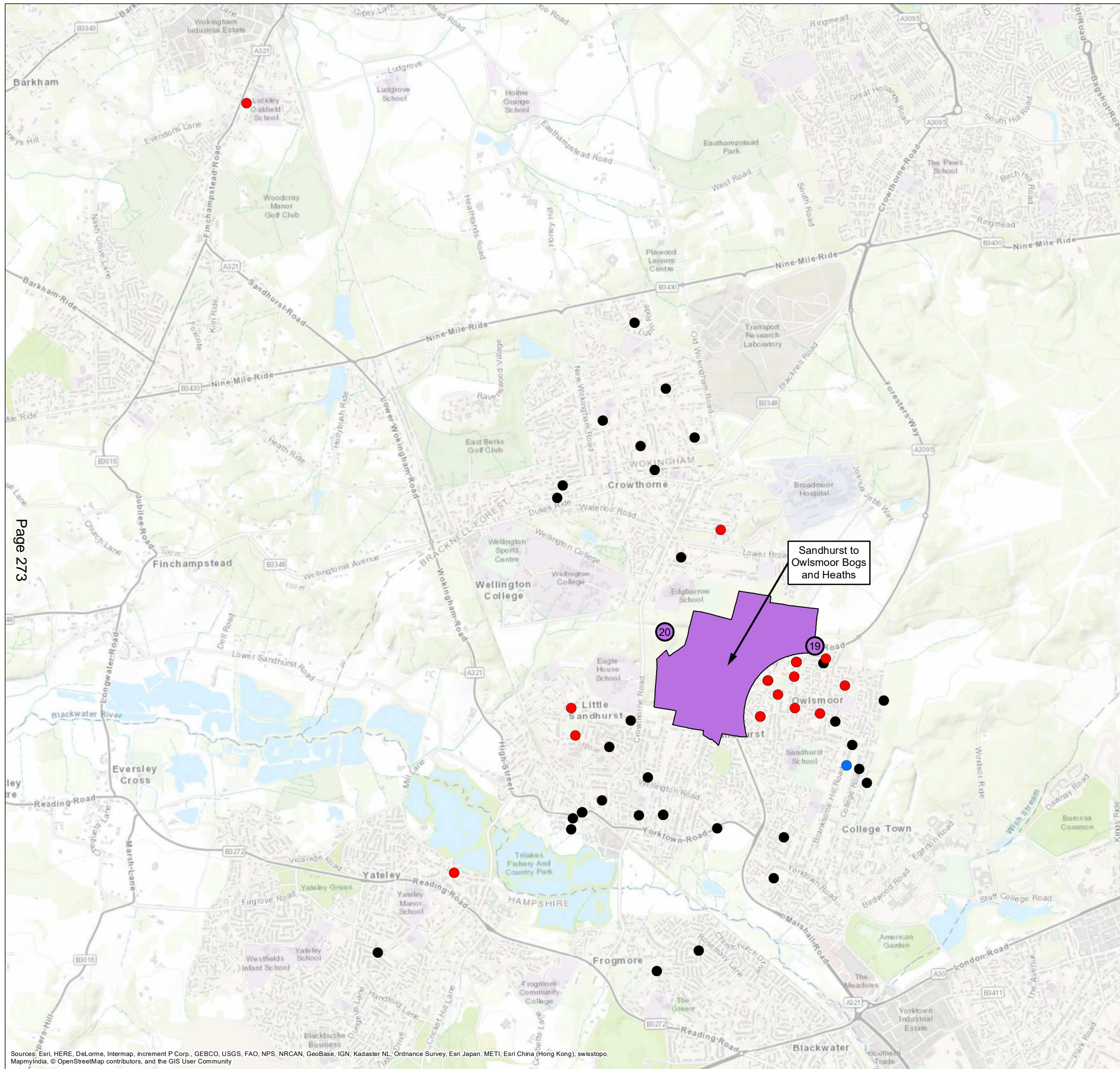Castle Bottom to Yateley and Hawley Commons

KEY

① Access points

Mode of transport

● Bicycle

● Car/van

● Foot

Thames Basin Heaths SPA Components

Castle Bottom to Yateley and Hawley Commons

Castle Bottom to Yateley and Hawley Commons

SCALE: 1:50,000 at A3

0   500   1,000 1,500   2,000 Metres

N

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PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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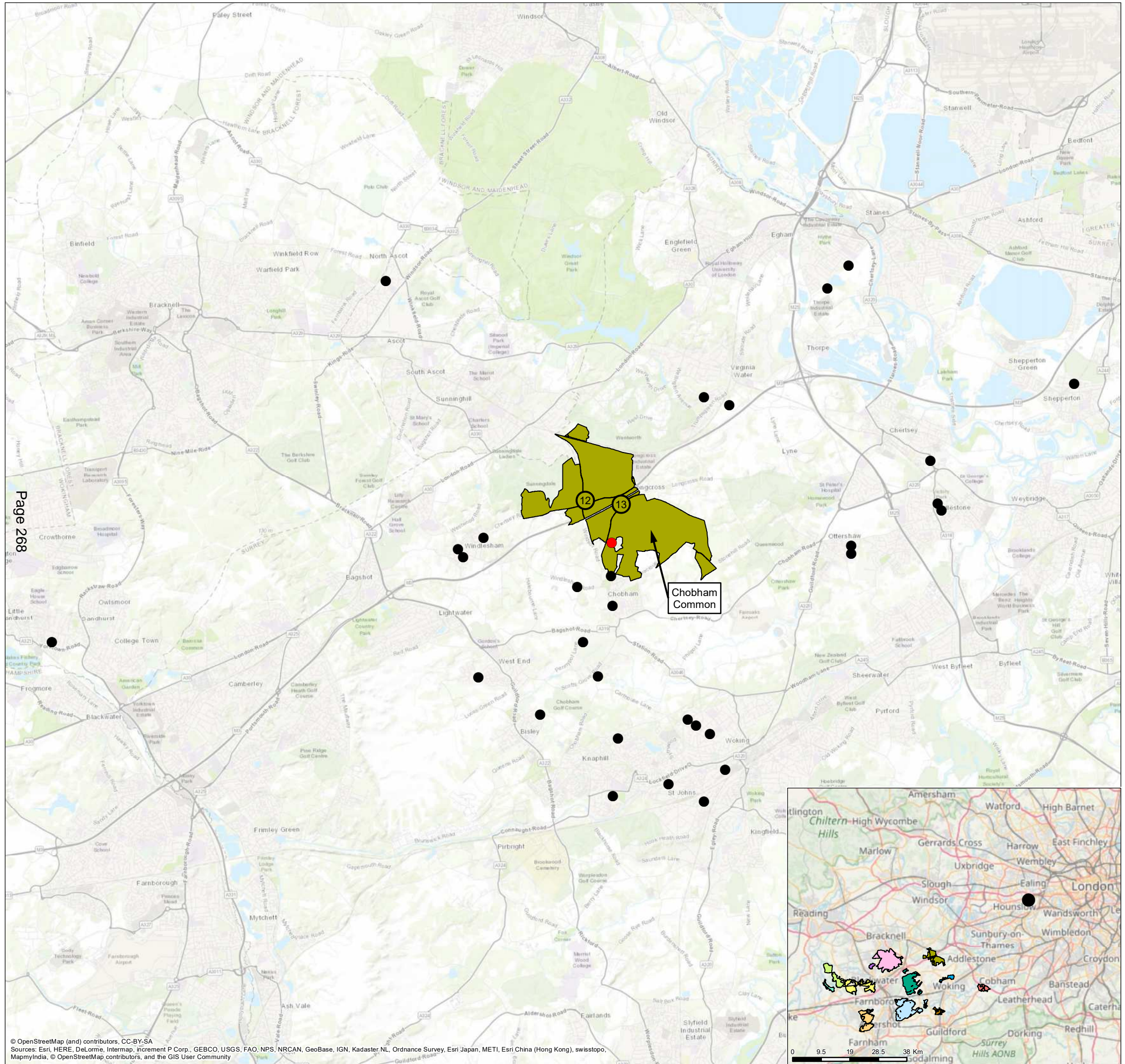
MAP 4g Visitor Origins -
Chobham Common

KEY

①   Access points

Mode of transport

●   Car/van

●   Foot

Thames Basin Heaths SPA Components

   Chobham Common

Chobham
Common

SCALE: 1:90,000 at A3
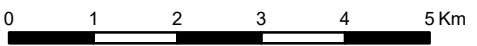
0   1   2   3   4   5 Km

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

Y:\Thames Basin Heaths Visitor Survey\GIS\Map4g_Visitor_Origins_Chobham_Common_P1835_051118.mxd

P18/35
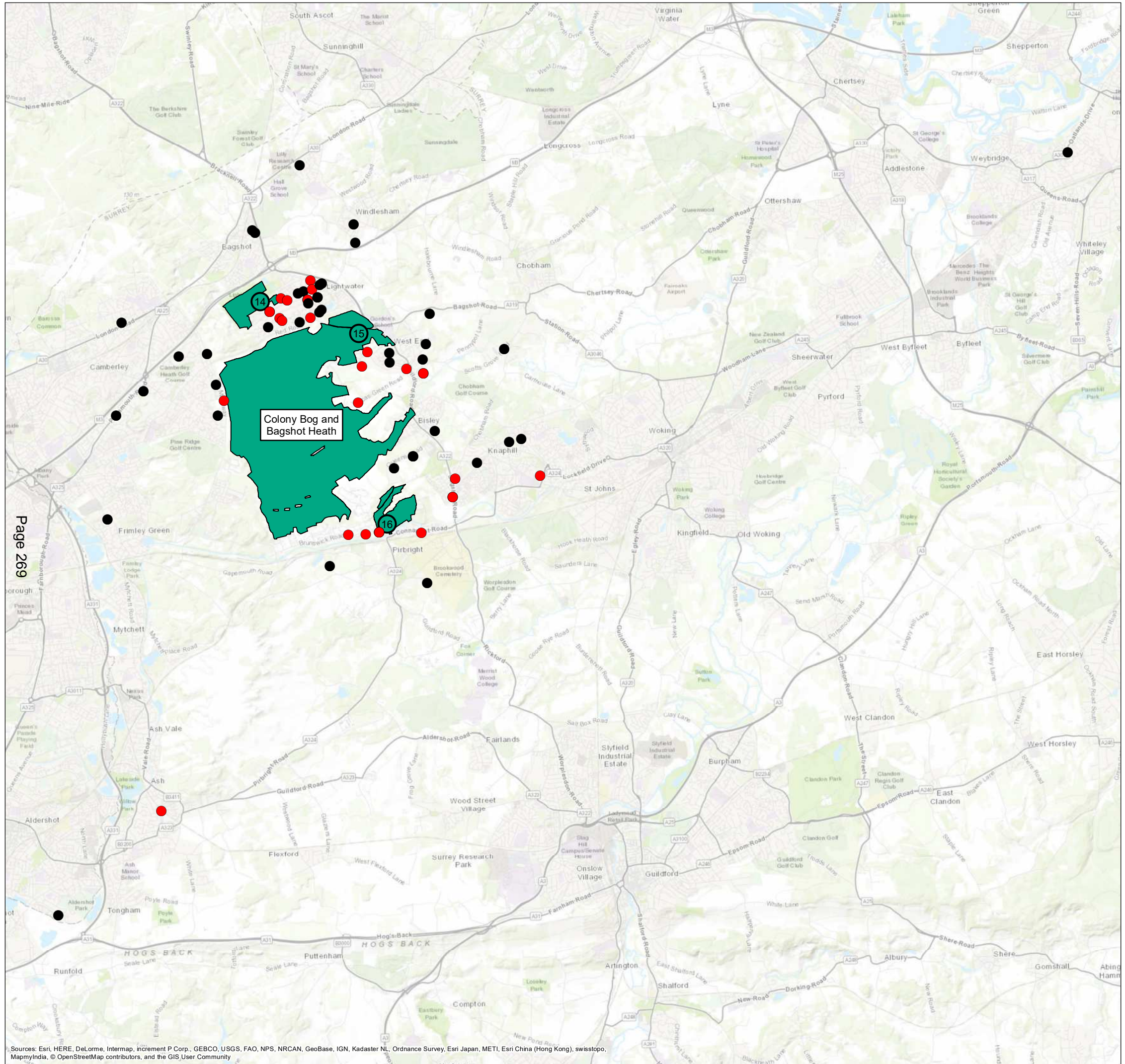
MAP 4h Visitor Origins -
Colony Bog and Bagshot Heath

KEY

① Access points

Mode of transport

● Car/van

● Foot

Thames Basin Heaths SPA Components

Colony Bog and Bagshot Heath

Colony Bog and
Bagshot Heath

Page 269

SCALE: 1:80,000 at A3

0   1   2   3   4   5 Km

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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MAP 4i   Visitor Origins -
Hazeley Heath

KEY

① Access points

Mode of transport

● Car/van

● Foot

Thames Basin Heaths SPA Components

Hazeley Heath

Hazeley Heath
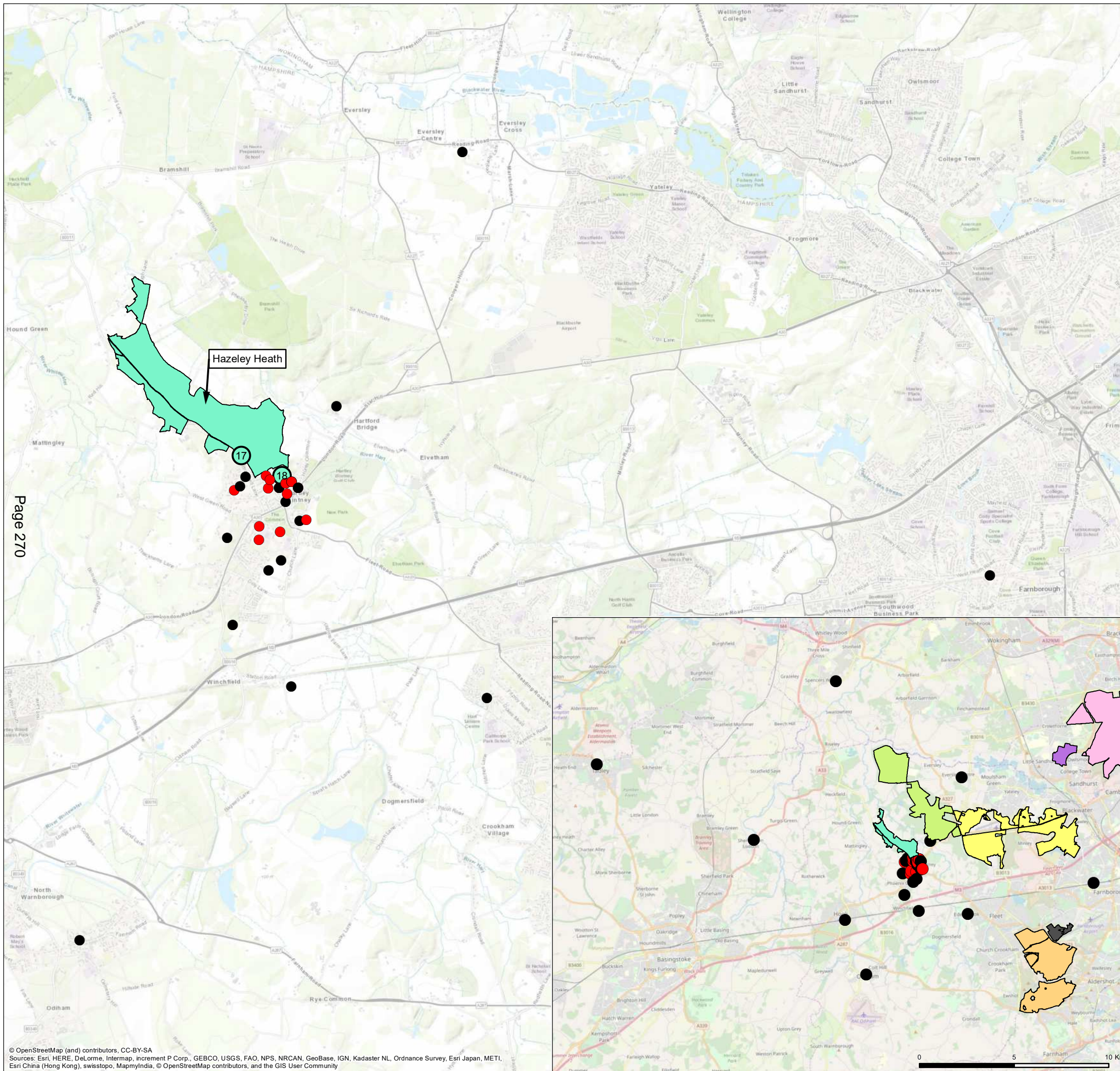
SCALE: 1:50,000 at A3

0   1   2 Kilometres

N

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Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

0   5   10 Km

P18/35

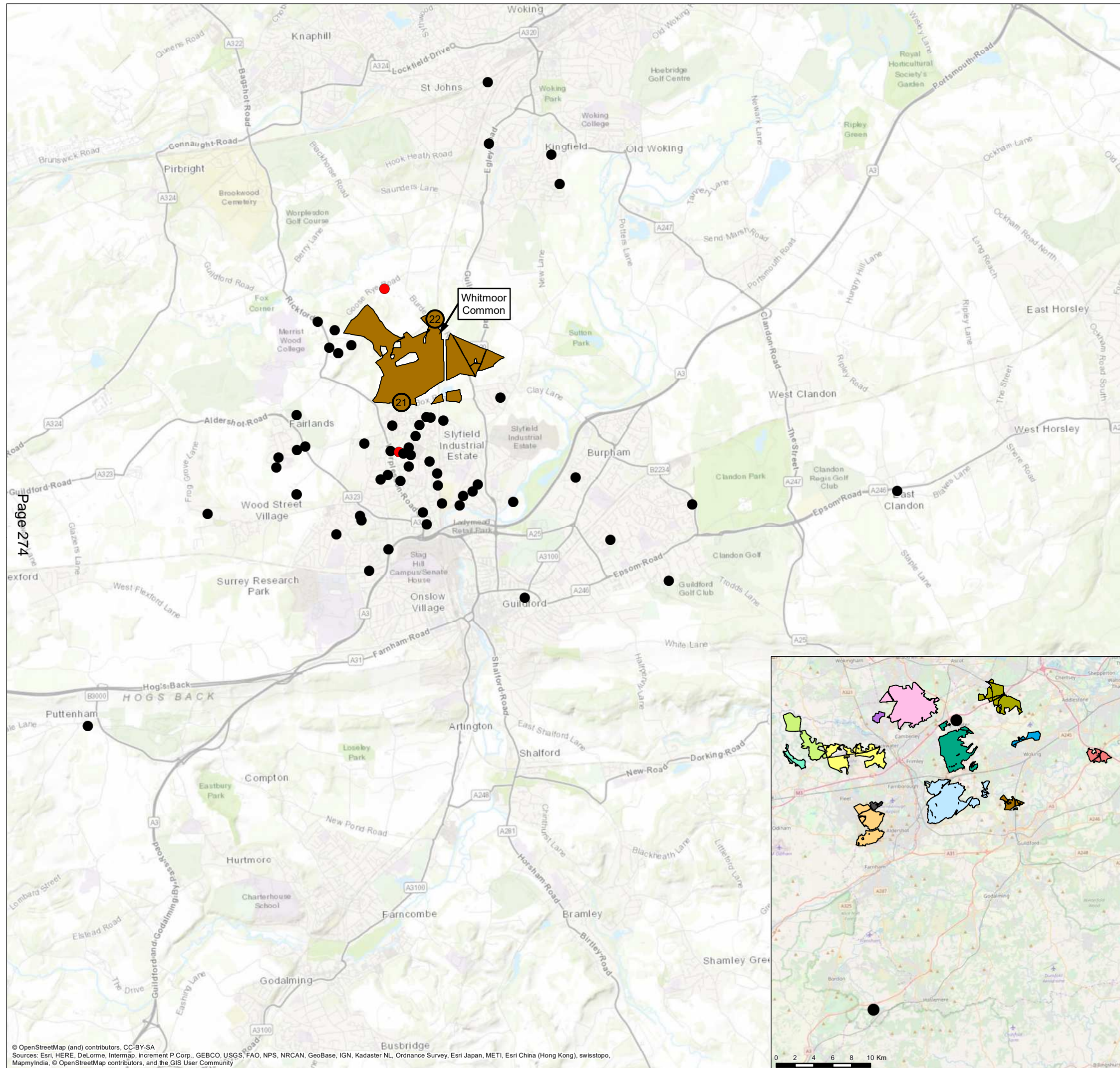MAP 4j   Visitor Origins -
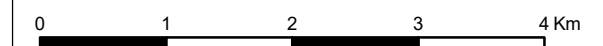Horsell Common

KEY

① Access points

Mode of transport

● Car/van

● Foot

Thames Basin Heaths SPA Components

Horsell Common
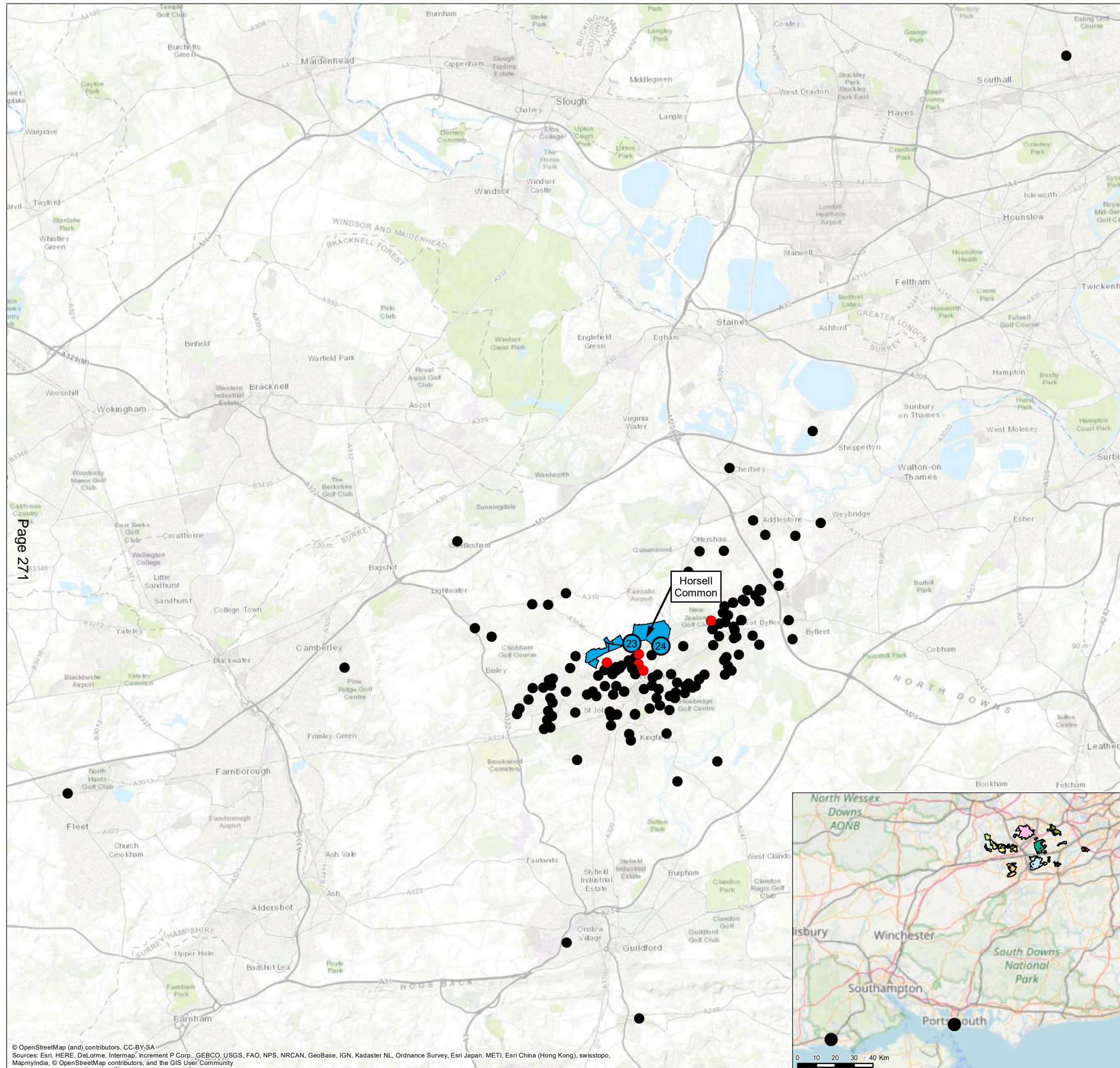
Horsell
Common

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Km

N

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0 10 20 30 40 Km

**MAP 4k Visitor Origins -
Ockham and Wisley Commons**

KEY

① Access points

Mode of transport

● Car/van

Thames Basin Heaths SPA Components

Ockham and Wisley Commons
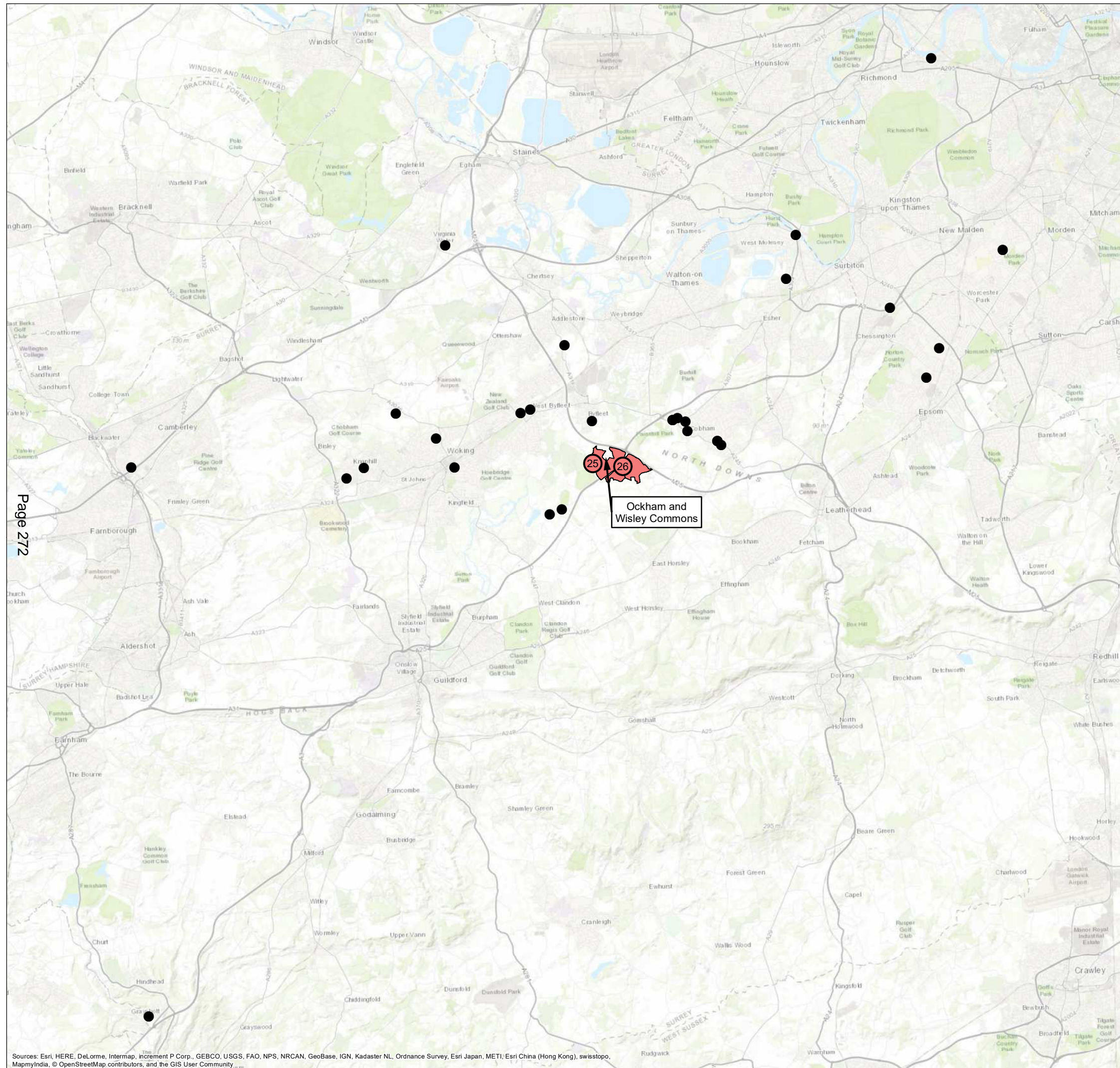
Ockham and
Wisley Commons

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Km

N

EPR

Ecological Planning & Research

CLIENT: Natural England

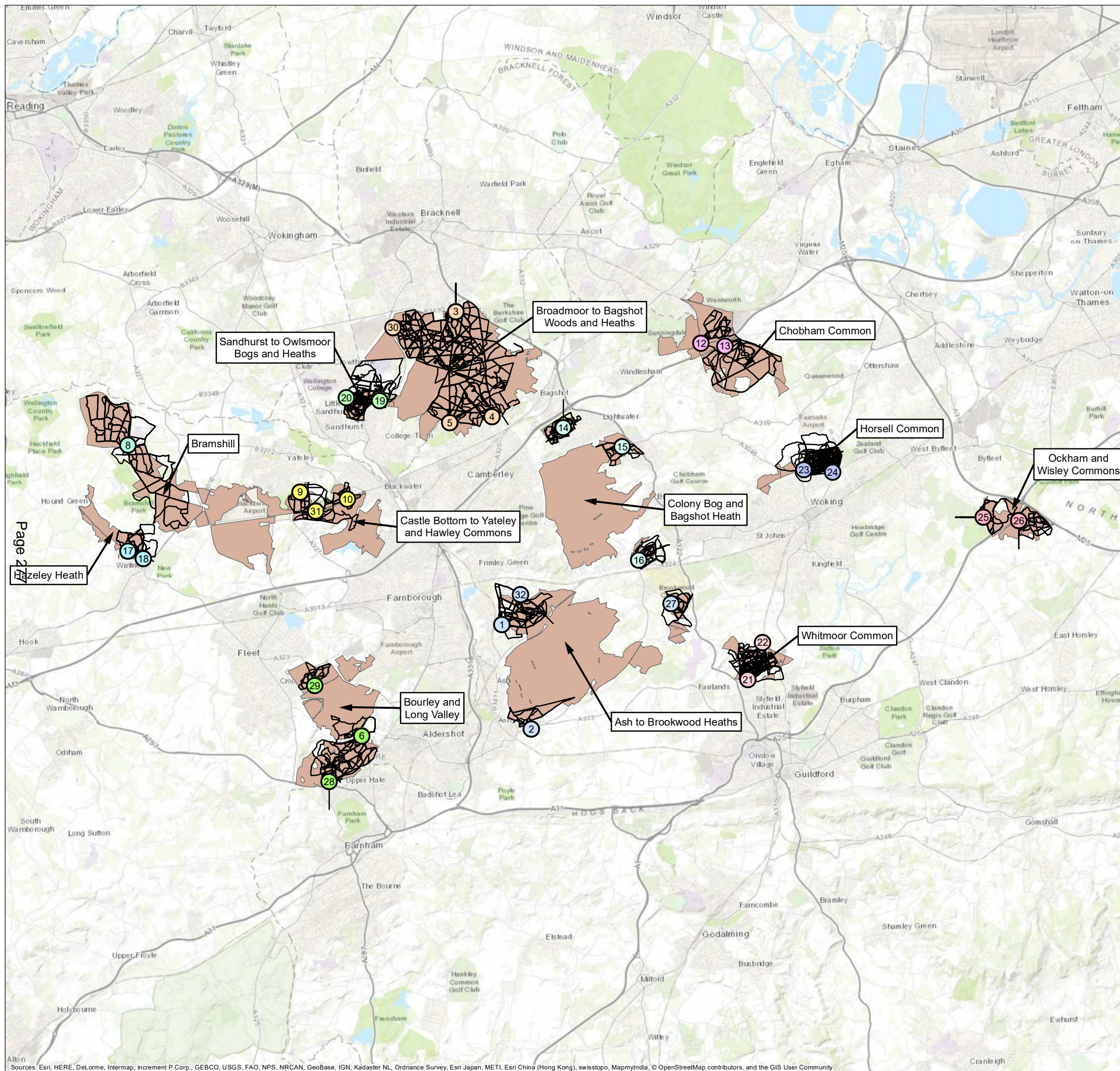PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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MAP 4I Visitor Origins -
Sandhurst to Owlsmoor Bogs and
Heaths

KEY

① Access points

Mode of transport

● Bicycle

● Car/van

● Foot

Thames Basin Heaths SPA Components

Sandhurst to Owlsmoor Bogs and Heaths

Sandhurst to
Owlsmoor Bogs
and Heaths

SCALE: 1:30,000 at A3

0 500 1,000 1,500 2,000 Metres

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

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MAP 4m Visitor Origins -
Whitmoor Common

KEY

① Access points

Mode of transport

● Car/van

● Foot

Thames Basin Heaths SPA Components

Whitmoor Common

SCALE: 1:60,000 at A3

0   1   2   3   4 Km

N

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KEY

● Visitor Origins

Thames Basin Heaths SPA Components

Ash to Brookwood Heaths

Bourley and Long Valley

Bramshill

Broadmoor to Bagshot Woods and Heaths

Castle Bottom to Yateley and Hawley Commons

Chobham Common

Colony Bog and Bagshot Heath

Eelmoor Marsh (no access points)

Hazeley Heath

Horsell Common

Ockham and Wisley Commons

Sandhurst to Owlsmoor Bogs and Heaths

Whitmoor Common

SCALE: 1:1,000,000 at A3

0   10   20   30   40   50 Kilometres

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

Y:\Thames Basin Heaths Visitor Survey\GIS\Map4n_Visitor_Origins_Non_Local_P1835_051118.mxd
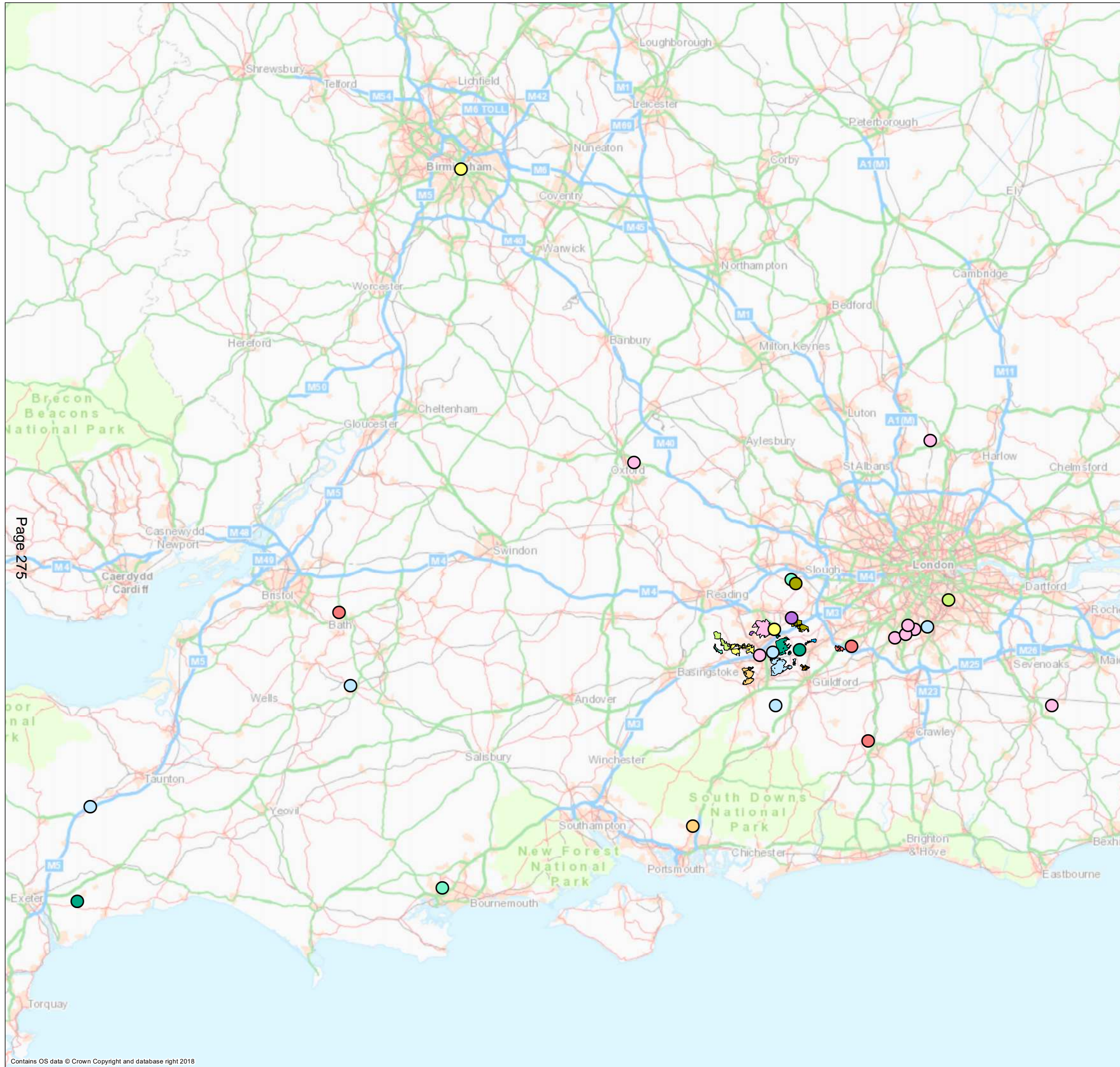
MAP 5   Indicative Visitor Catchments
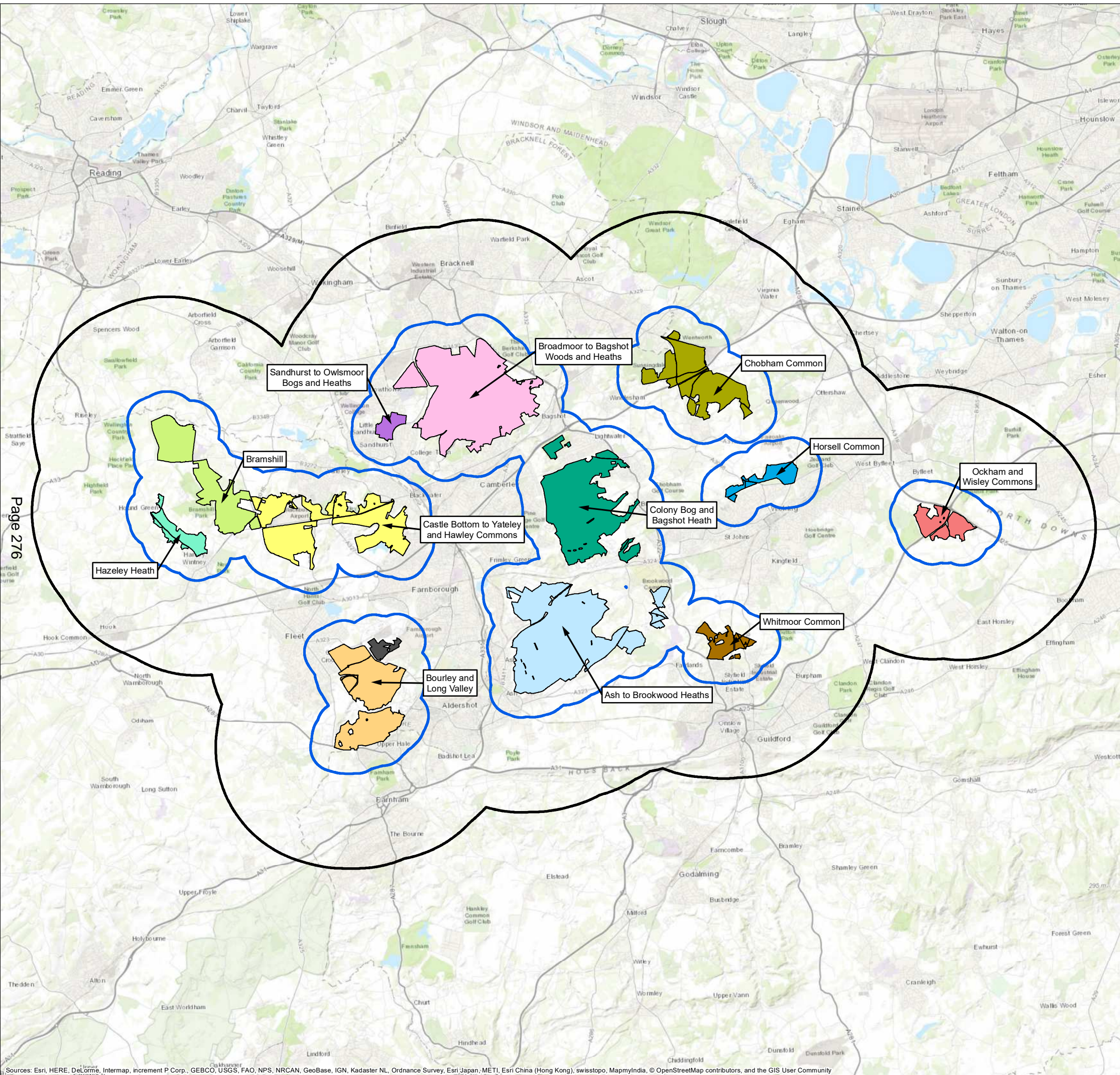
KEY

☐ Indicative 1km walking catchment

☐ Indicative 5km driving catchment

Thames Basin Heaths SPA Components

- Ash to Brookwood Heaths
- Bourley and Long Valley
- Bramshill
- Broadmoor to Bagshot Woods and Heaths
- Castle Bottom to Yateley and Hawley Commons
- Chobham Common
- Colony Bog and Bagshot Heath
- Eelmoor Marsh (no access points)
- Hazeley Heath
- Horsell Common
- Ockham and Wisley Commons
- Sandhurst to Owlsmoor Bogs and Heaths
- Whitmoor Common

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Kilometres

N

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PROJECT: TBH SPA Visitor Survey

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MAP 6   Routes Taken on Site

KEY

①   Access points

——   Routes taken on site

▨   Thames Basin Heaths SPA

Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Bramshill

Horsell Common

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

Page 2

SCALE: 1:135,000 at A3

0 1 2 3 4 5 Kilometres

N

EPR

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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Y:\Thames Basin Heaths Visitor Survey\GIS\Map6_Routes_Taken_on_Site_P1835_051118.mxd

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MAP 7a Recreational Pressure

KEY

① Access points

Thames Basin Heaths SPA

Recreational pressure
m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
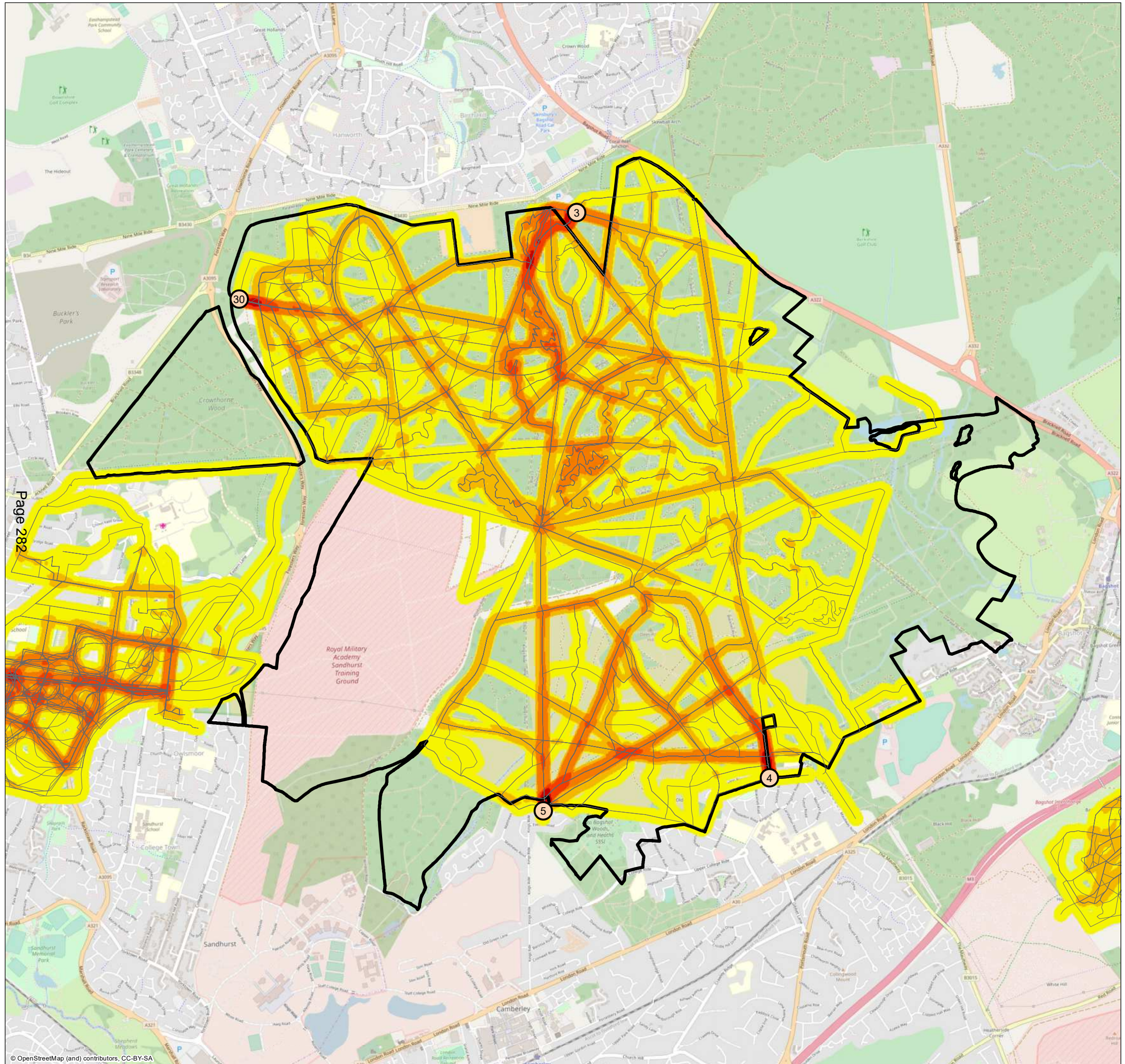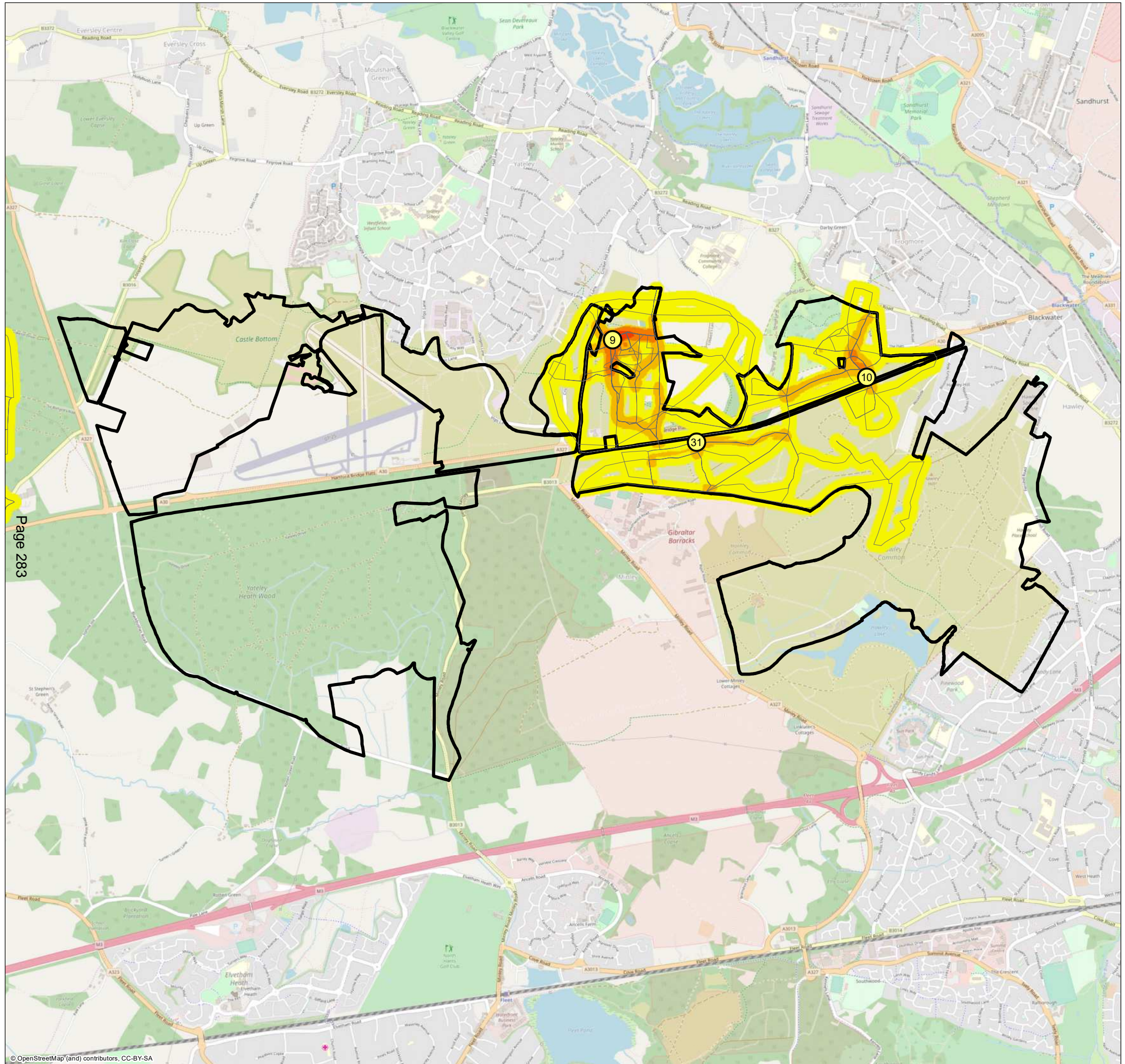0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:135,000 at A3
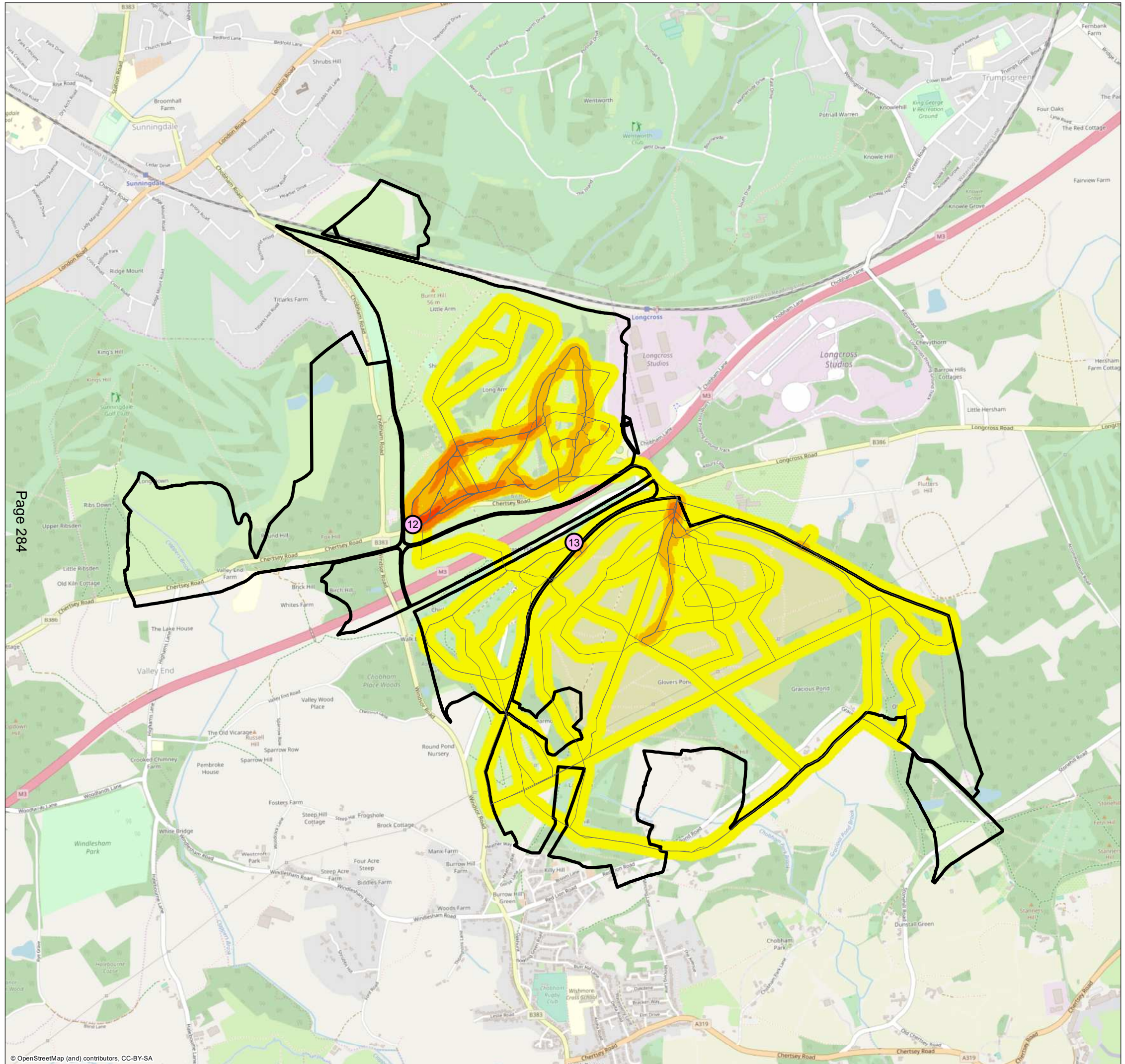
0 1 2 3 4 5 Kilometres

N

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Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Bramshill

Horsell Common

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

MAP 7b Recreational Pressure - Ash to Brookwood Heaths

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

🟨	0.01 - 0.06 - Very low
🟧	0.06 - 0.18 - Low
🟧	0.18 - 0.36 - Medium
🟥	0.36 - 0.66 - High
🟥	0.66 - 1.95 - Very high

SCALE: 1:25,000 at A3

0   250   500   750   1,000 Metres

N

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DATE: November 2018

Y:\Thames Basin Heaths Visitor Survey\GIS\Map7b_Recreational_Pressure_Ash_to_Brookwood_Heaths_Combined_P1835_051118.mxd   P18/35

MAP 7c Recreational Pressure - Bourley and Long Valley

KEY

① Access points

▢ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high
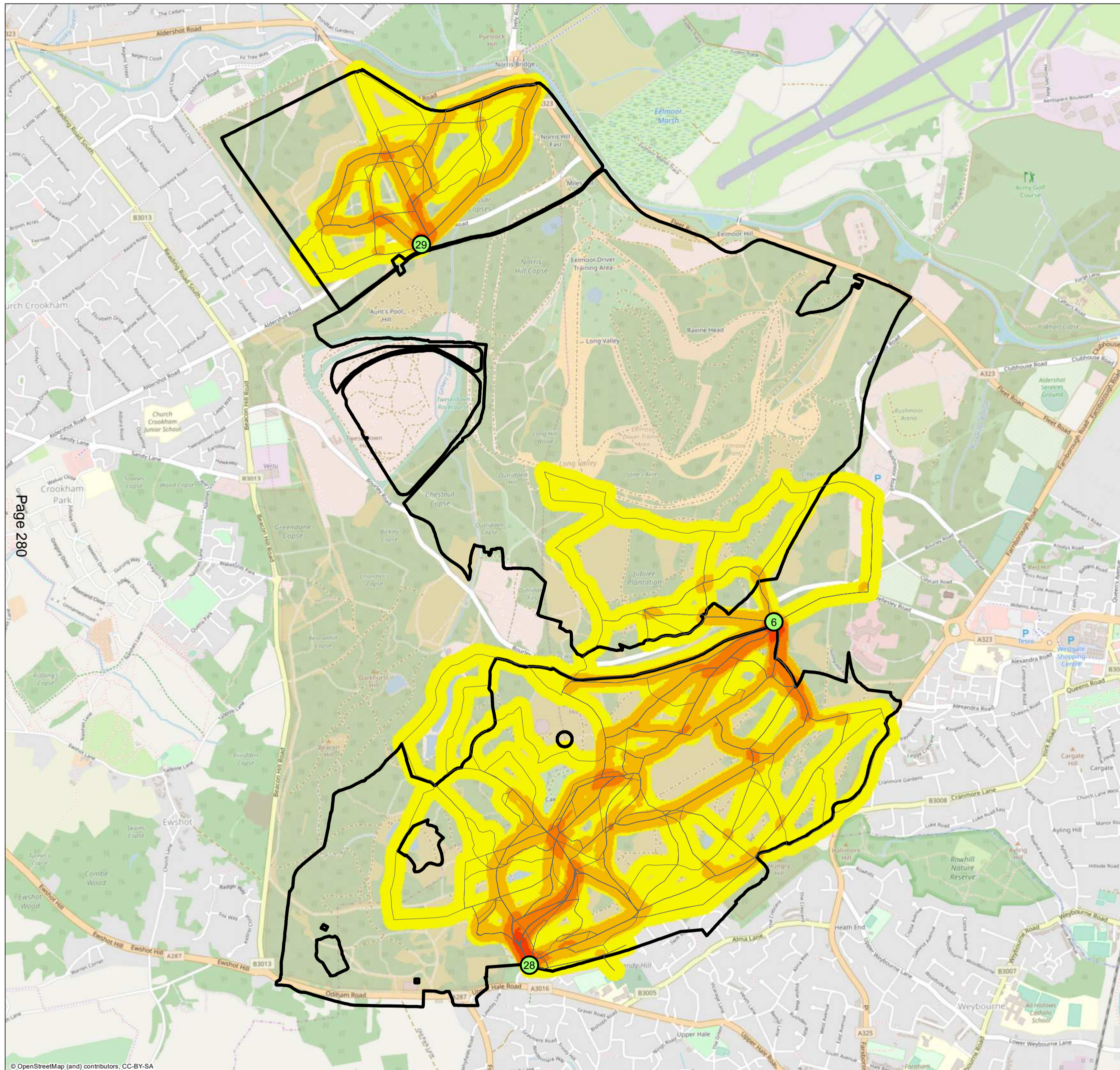
SCALE: 1:18,000 at A3

0   250   500   750   1,000 Metres

N

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CLIENT: Natural England

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DATE: November 2018

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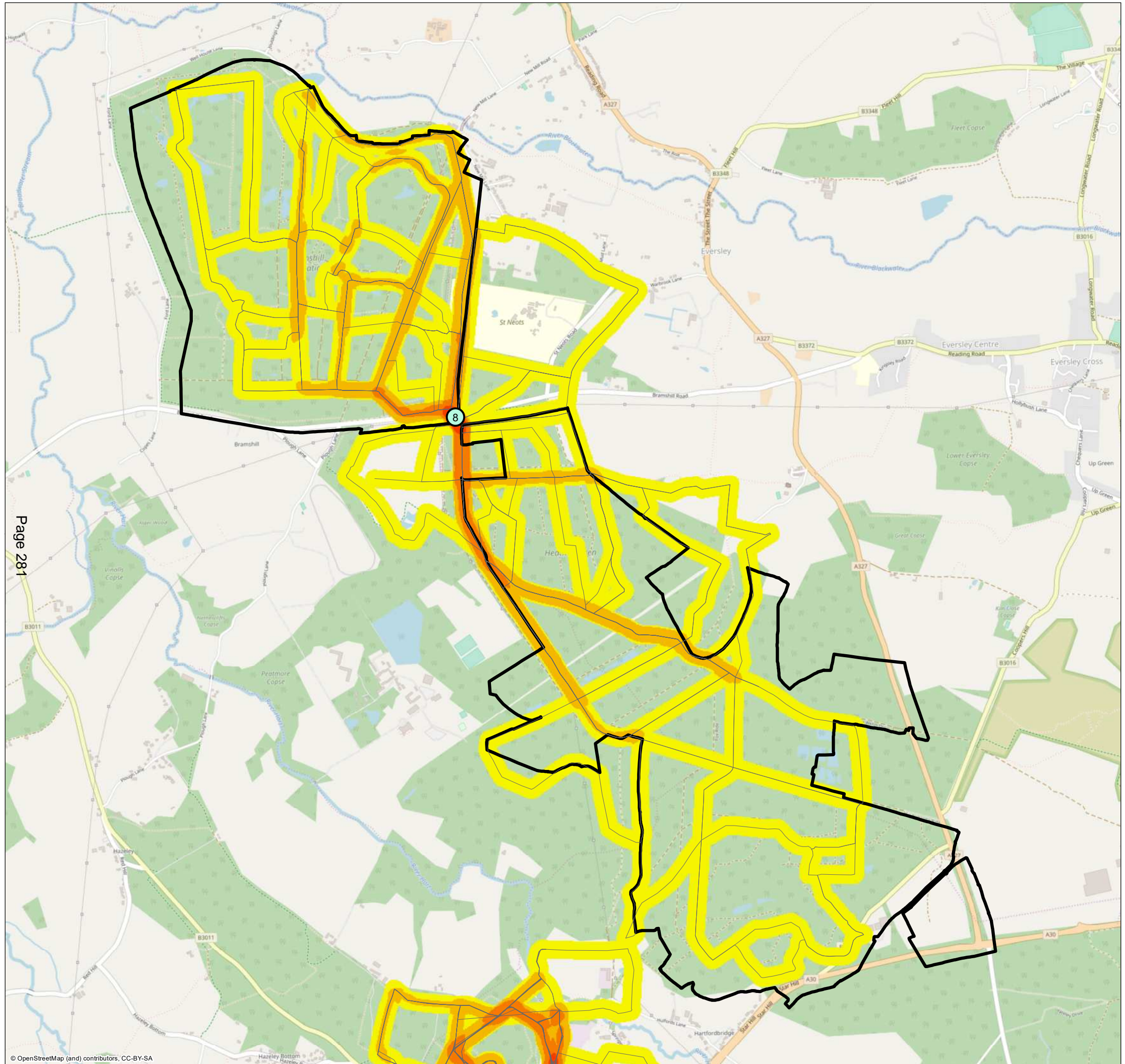
MAP 7d Recreational Pressure - Bramshill

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:20,000 at A3

0   250   500   750   1,000 Metres

N

Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

Y:\Thames Basin Heaths Visitor Survey\GIS\Map7d_Recreational_Pressure_Bramshill_P1835_Combined_051118.mxd

MAP 7e Recreational Pressure -
Broadmoor to Bagshot Woods and
Heaths

KEY

① Access points

▭ Thames Basin Heaths SPA

── Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:25,000 at A3
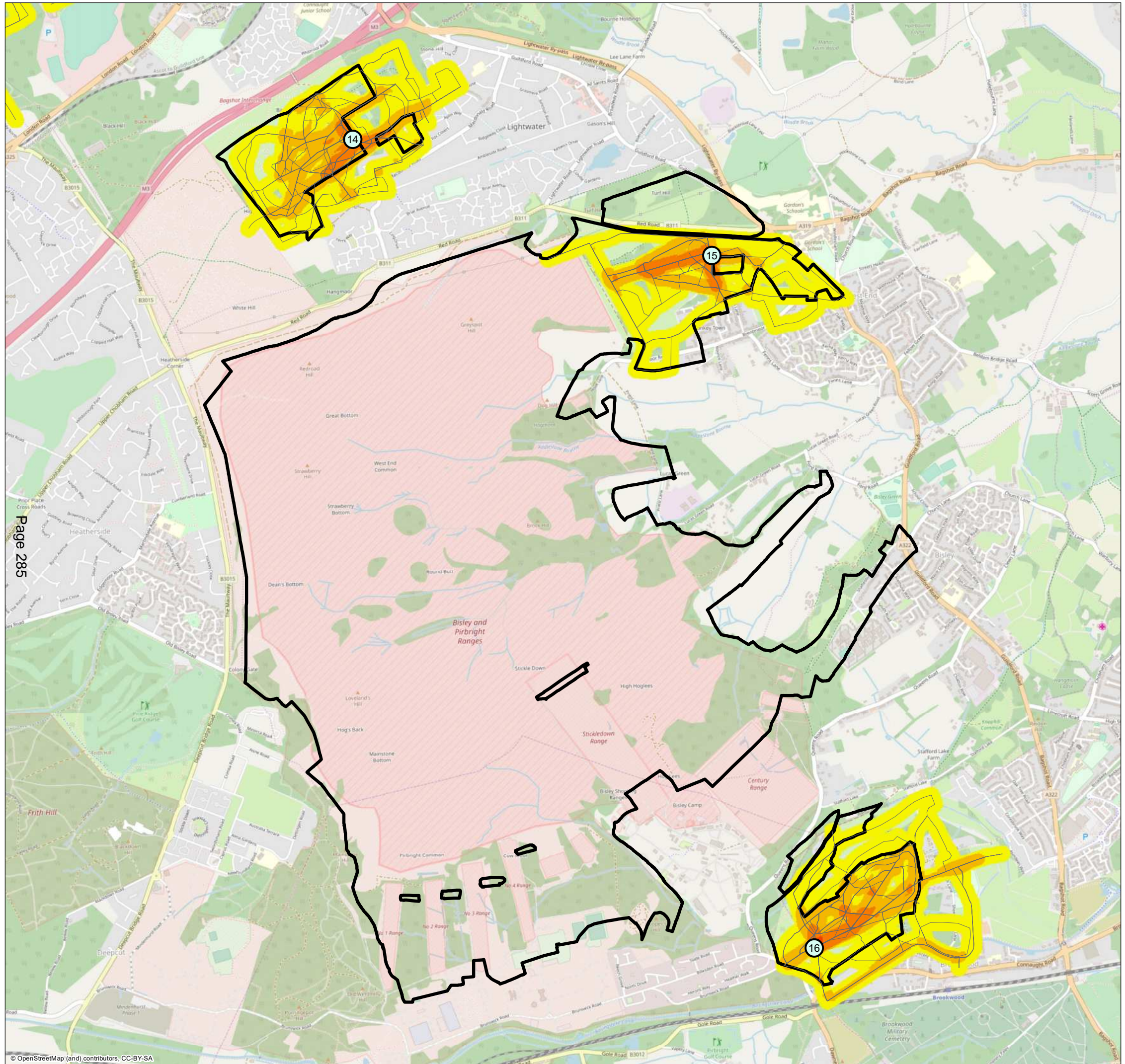
0   250   500   750   1,000 Metres

N

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PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 7f   Recreational Pressure -
Castle Bottom to Yateley and Hawley
Commons

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

🟨	0.01 - 0.06 - Very low
🟧	0.06 - 0.18 - Low
🟧	0.18 - 0.36 - Medium
🟥	0.36 - 0.66 - High
🟥	0.66 - 1.95 - Very high

SCALE: 1:25,000 at A3

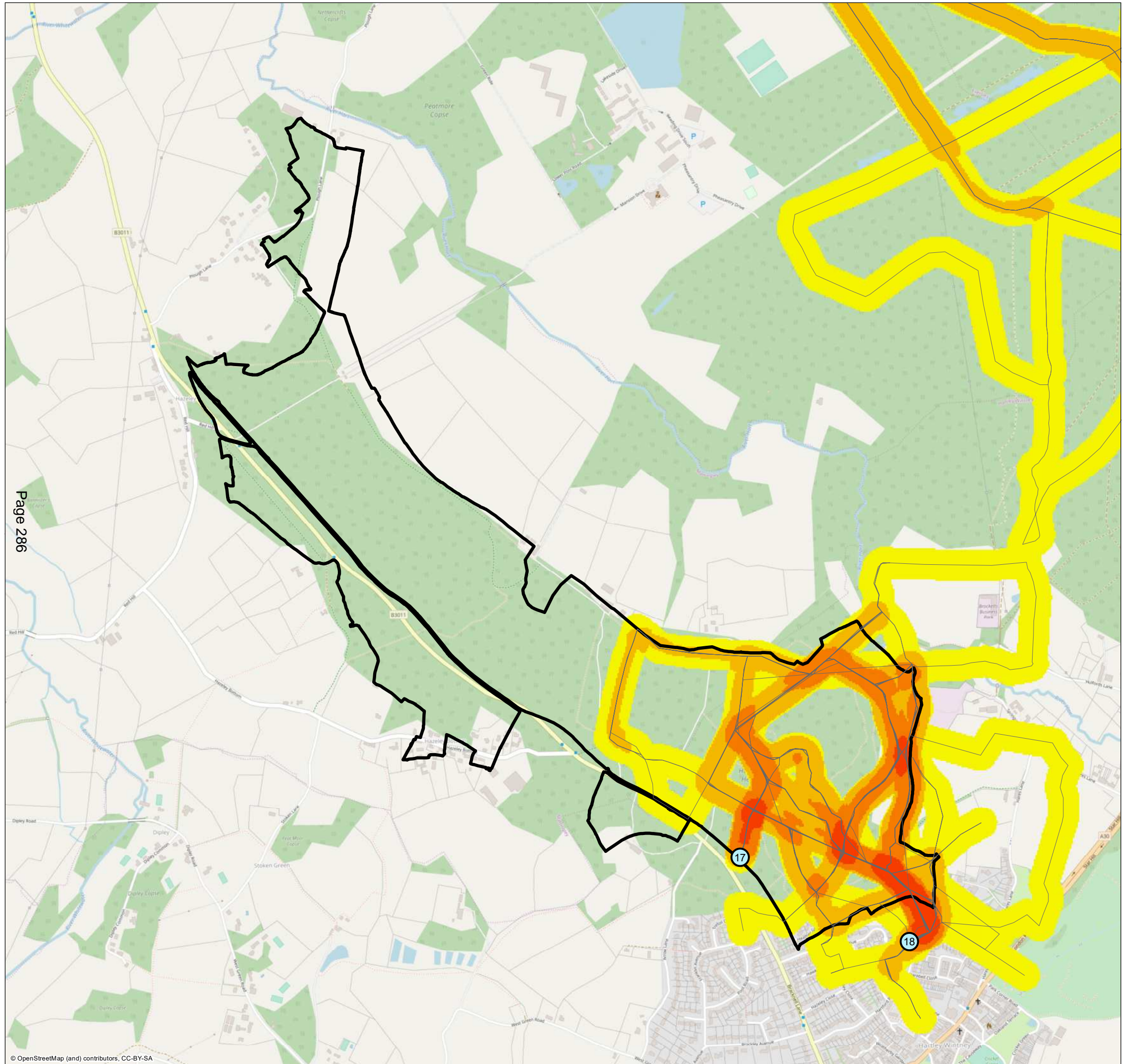0   250   500   750   1,000 Metres

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 7g   Recreational Pressure - Chobham Common

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure
m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:20,000 at A3

0   250   500   750   1,000 Metres

N

EPR
Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

Y:\Thames Basin Heaths Visitor Survey\GIS\Map7g_Recreational_Pressure_Chobham_Common_P1835_Combined_051118.mxd

MAP 7h   Recreational Pressure -
Colony Bog and Bagshot Heath

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low

0.06 - 0.18 - Low

0.18 - 0.36 - Medium

0.36 - 0.66 - High

0.66 - 1.95 - Very high

SCALE: 1:22,000 at A3

0   250   500   750   1,000 Metres

N

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CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

MAP 7i Recreational Pressure - Hazeley Heath

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure
m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:12,000 at A3

0 100 200 300 400 500 Metres

N

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MAP 7j   Recreational Pressure -
Horsell Common

KEY

① Access points

▭ Thames Basin Heaths SPA

Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low

0.06 - 0.18 - Low

0.18 - 0.36 - Medium

0.36 - 0.66 - High

0.66 - 1.95 - Very high

SCALE: 1:12,000 at A3

0   100 200 300 400 500 Metres

N

EPR

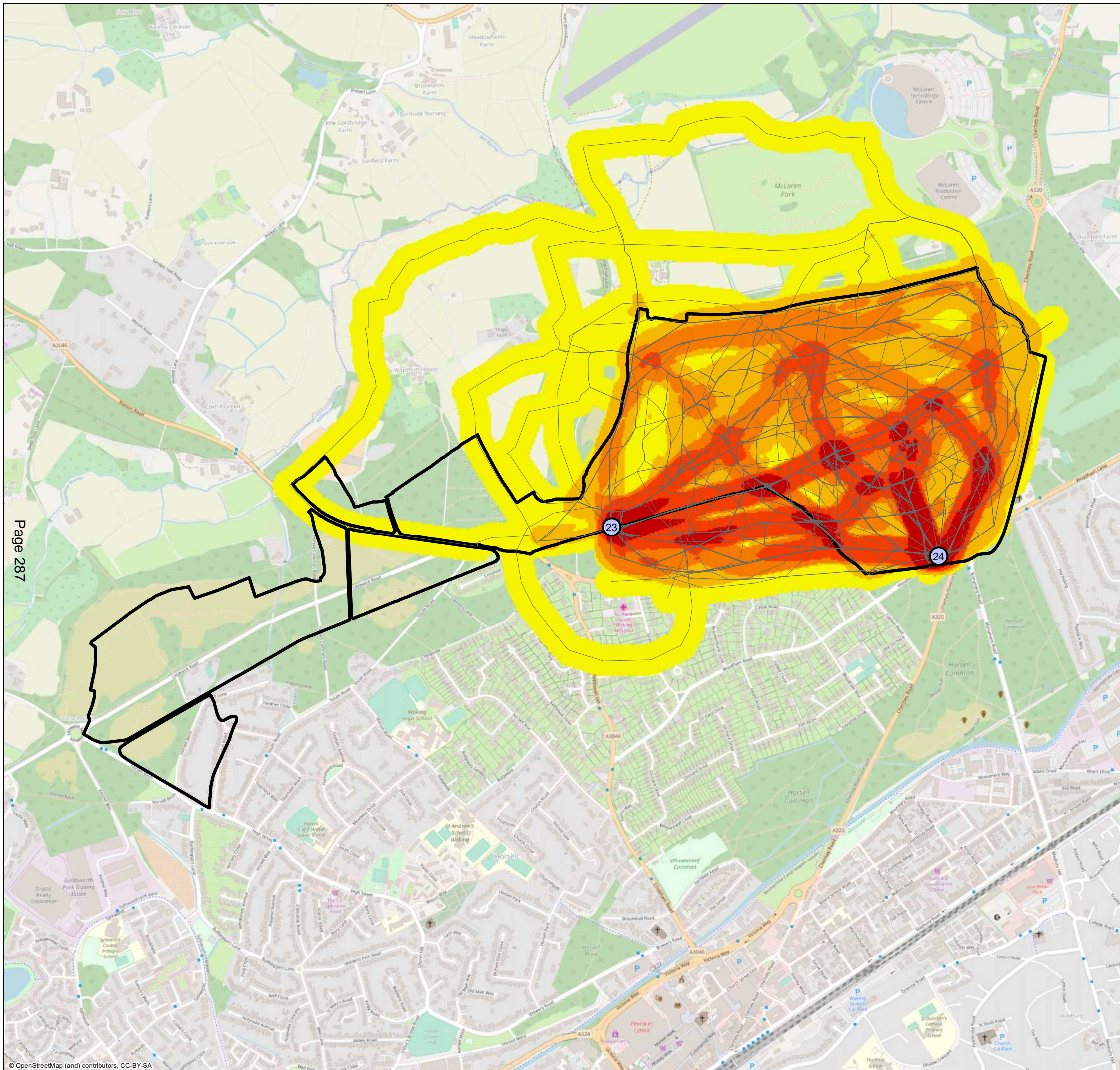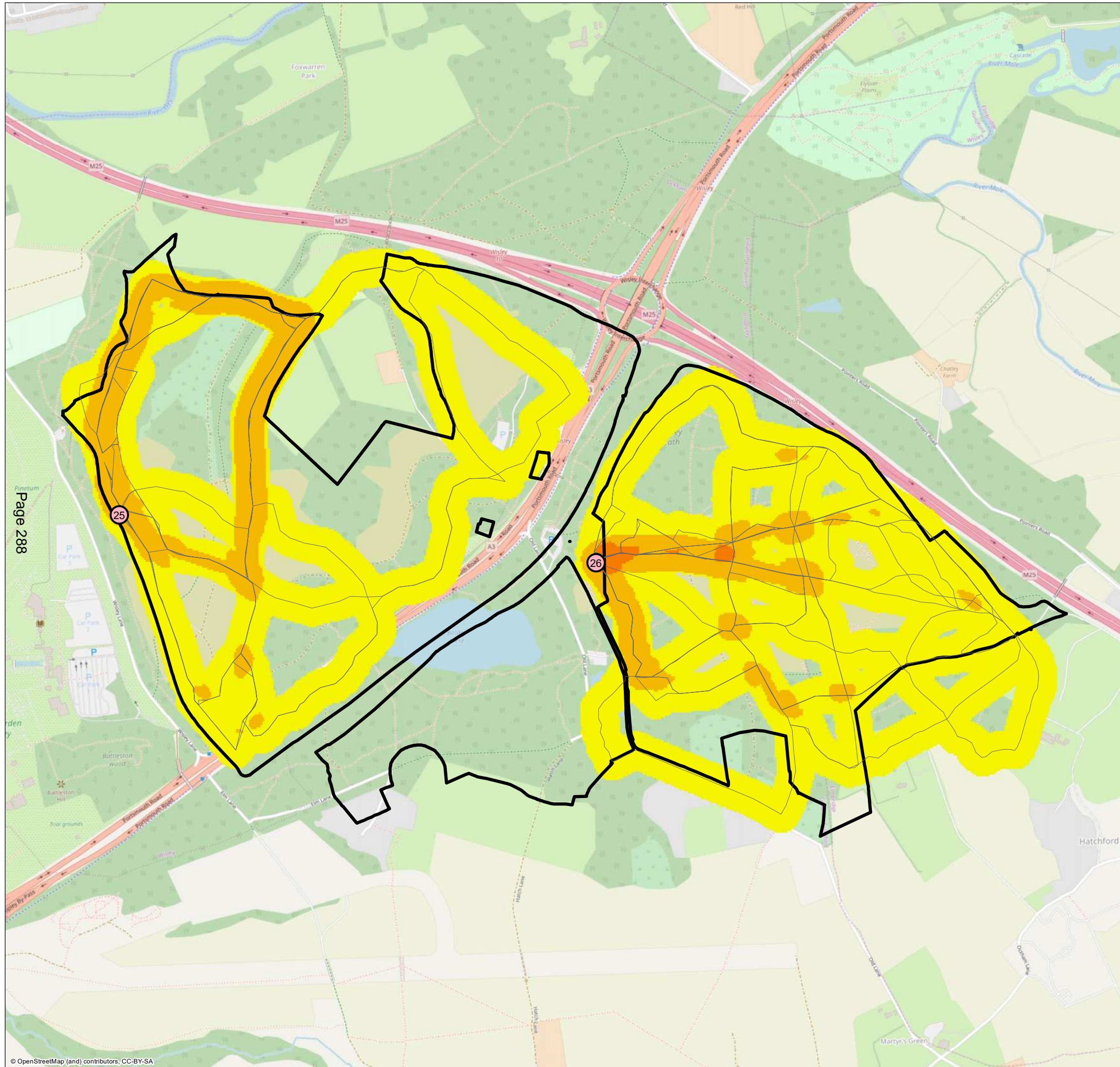Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 7k Recreational Pressure -
Ockham and Wisley Commons

KEY

①   Access points

▭   Thames Basin Heaths SPA

───   Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low

0.06 - 0.18 - Low

0.18 - 0.36 - Medium

0.36 - 0.66 - High

0.66 - 1.95 - Very high

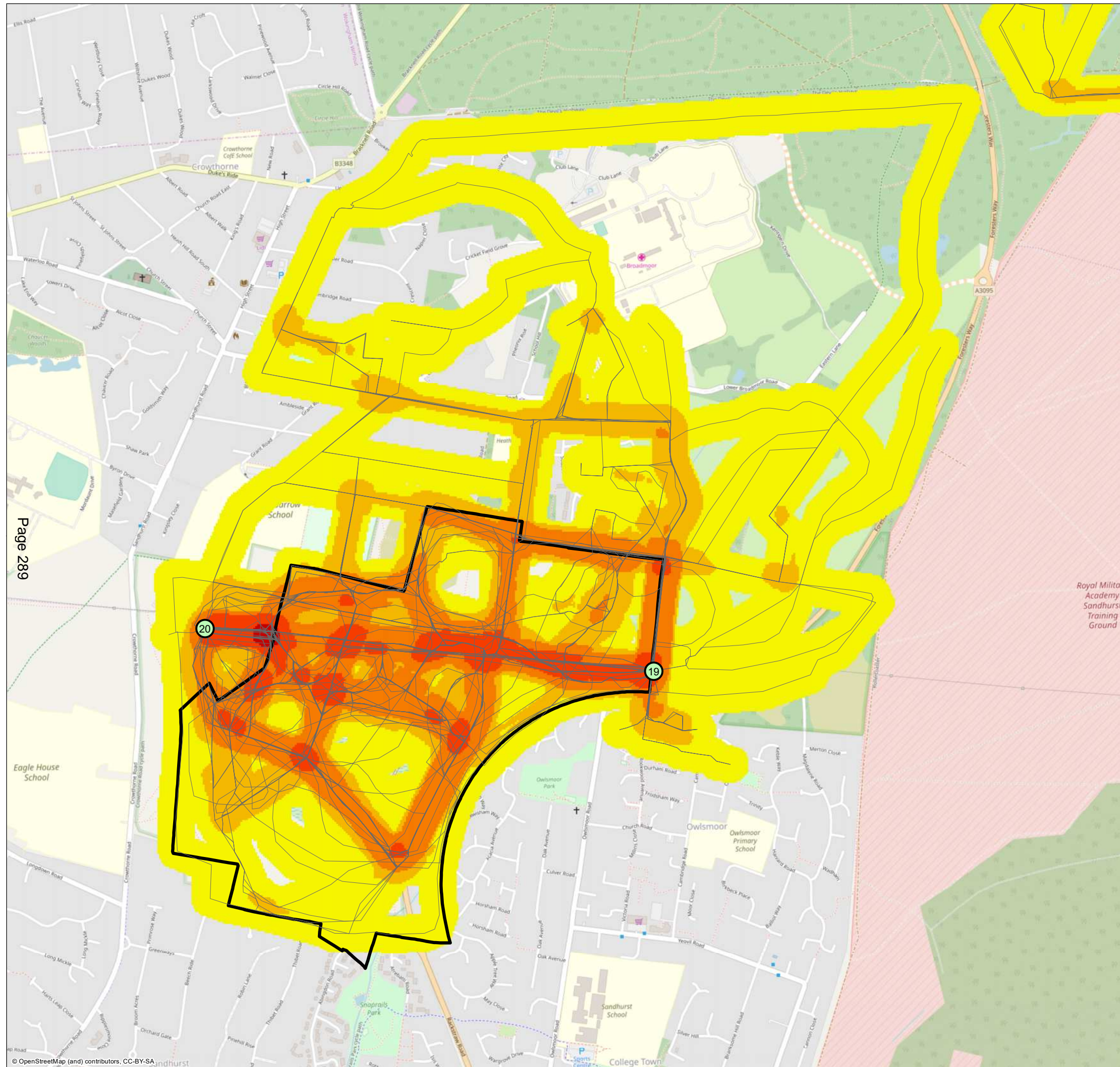SCALE: 1:10,000 at A3

0   100   200   300   400   500 Metres

N

EPR

Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 7I   Recreational Pressure -
Sandhurst to Owlsmoor Bogs and
Heaths

KEY

① Access points

☐ Thames Basin Heaths SPA

—— Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low

0.06 - 0.18 - Low

0.18 - 0.36 - Medium

0.36 - 0.66 - High

0.66 - 1.95 - Very high

SCALE: 1:10,000 at A3

0   100   200   300   400   500 Metres

N

EPR

Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

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MAP 7m Recreational Pressure -
Whitmoor Common

KEY

① Access points

▭ Thames Basin Heaths SPA

— Routes taken on site

Recreational pressure

m/m²

0.01 - 0.06 - Very low
0.06 - 0.18 - Low
0.18 - 0.36 - Medium
0.36 - 0.66 - High
0.66 - 1.95 - Very high

SCALE: 1:10,000 at A3

0   100   200   300   400   500 Metres

N

EPR
Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

MAP 8   Location of New Postcodes Since 2013

KEY

① Access points

● Postcodes

Thames Basin Heaths SPA

Indicative 400m walking catchment

Indicative 5km driving catchment

Broadmoor to Bagshot Woods and Heaths

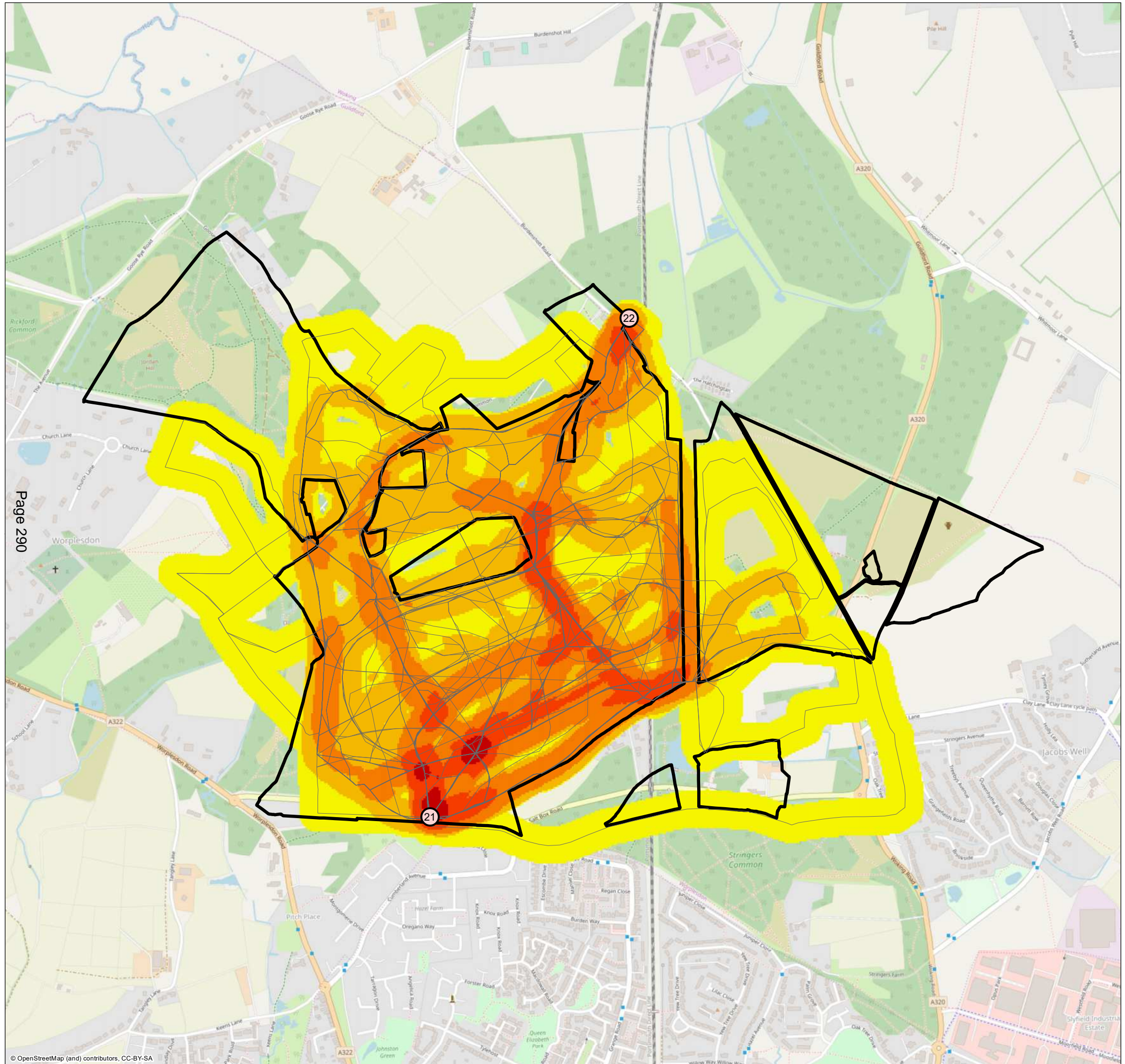Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Horsell Common

Ockham and Wisley Commons

Bramshill

Castle Bottom to Yateley and Hawley Commons

Colony Bog and Bagshot Heath

Hazeley Heath

Whitmoor Common

Bourley and Long Valley

Ash to Brookwood Heaths

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Kilometres

N

EPR

Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

Y:\Thames Basin Heaths Visitor Survey\GIS\Map8_Location_of_New_Postcodes_Since_2013_P1835_091118.mxd

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MAP 9   Implemented SANGs

KEY

Thames Basin Heaths SPA

Implemented SANGs

Broadmoor to Bagshot Woods and Heaths

Sandhurst to Owlsmoor Bogs and Heaths

Chobham Common

Hazeley Heath

Bramshill

Horsell Common

Colony Bog and Bagshot Heath

Ockham and Wisley Commons

Castle Bottom to Yateley and Hawley Commons

Eelmoor Marsh

Bourley and Long Valley

Whitmoor Common

Ash to Brookwood Heaths

Page 292

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Kilometres

N

EPR

Ecological Planning & Research

CLIENT: Natural England

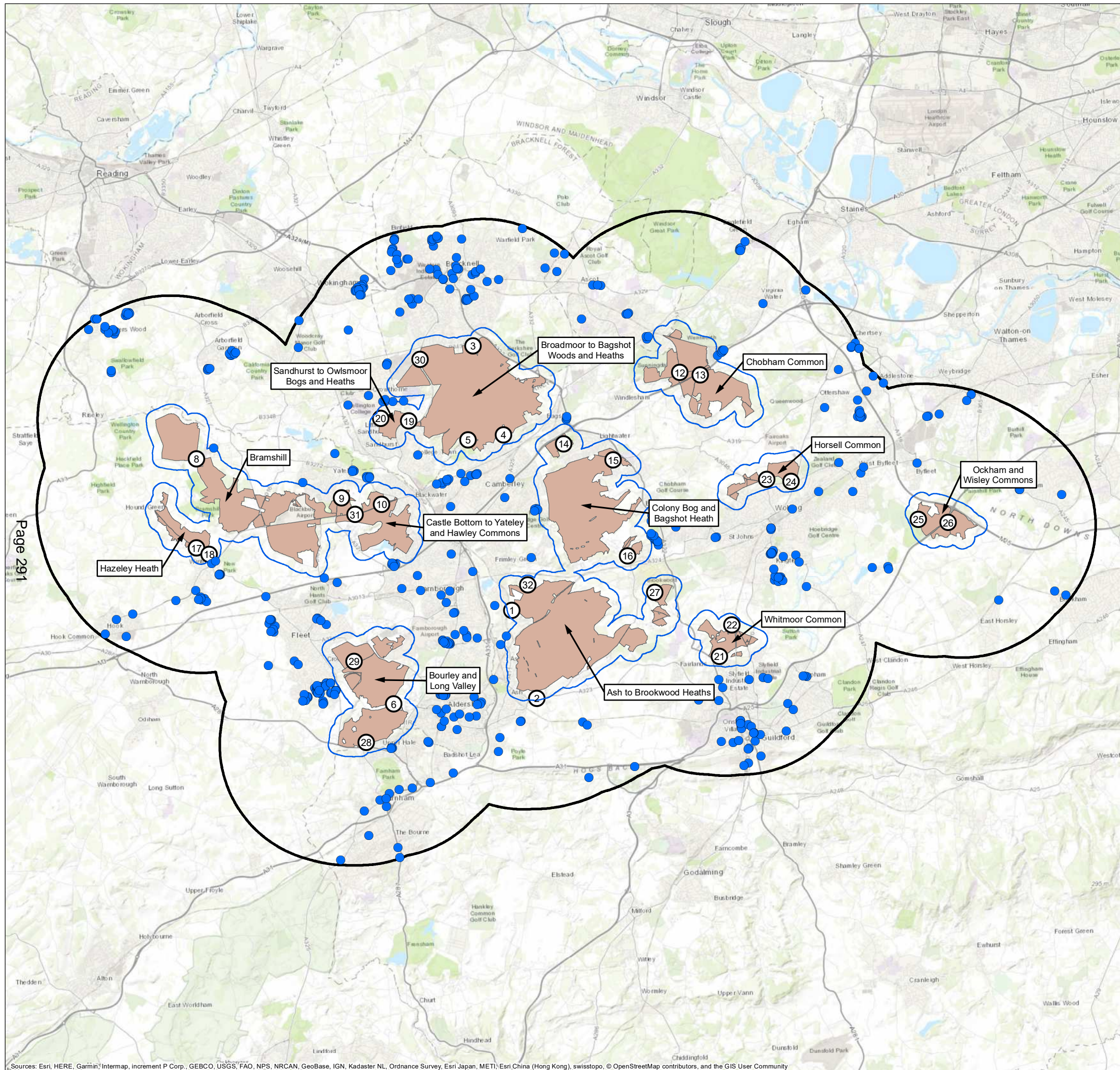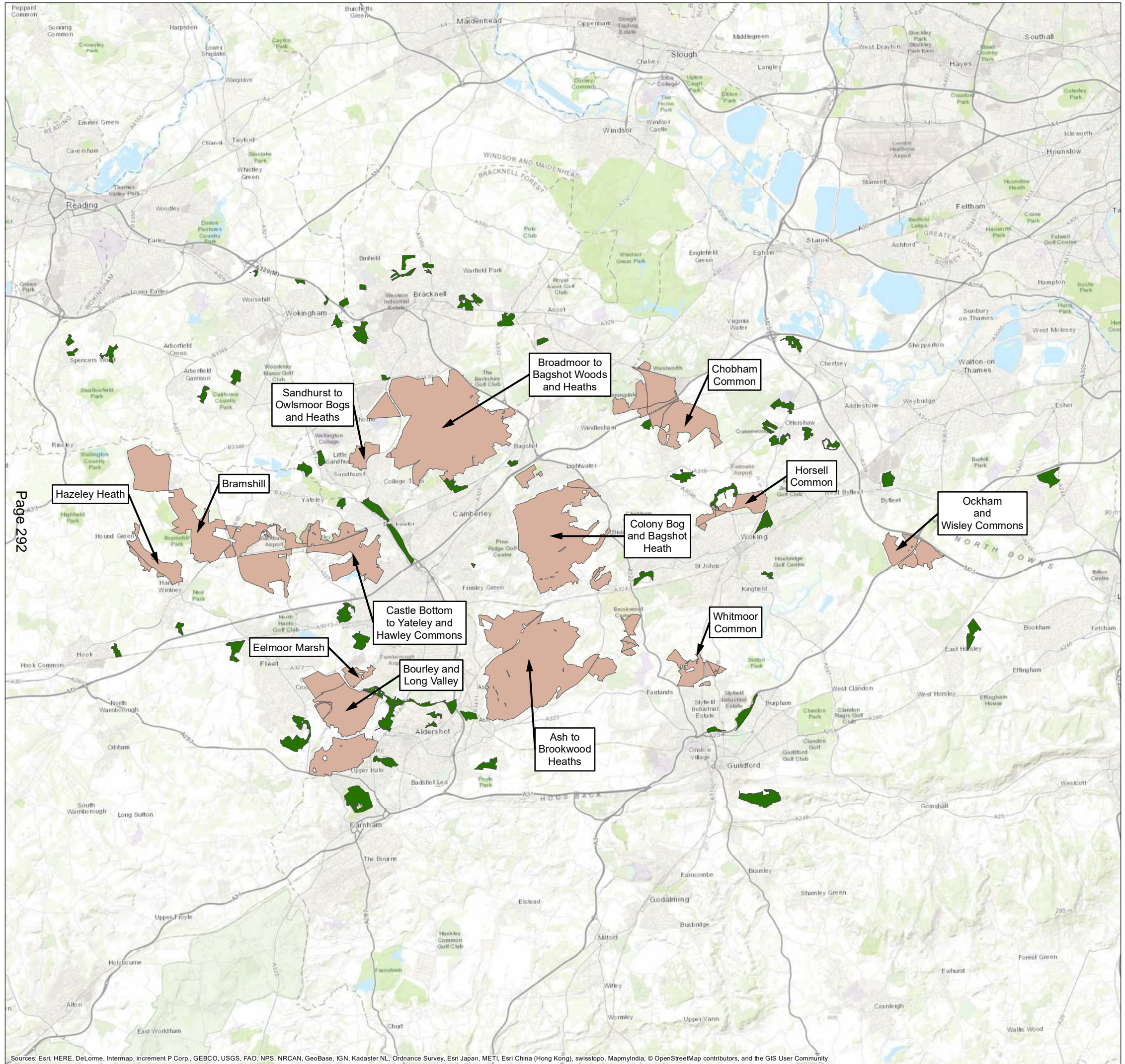PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 10a SANG Catchments and Footfall Compared to 2005

KEY

. All residential postcodes (2018)

• New Postcodes since 2013

Access Points/Change in Footfall

Decrease compared to 2005

Inconclusive - conflicting entry/exit results

Increase compared to 2005

Access points 26-32 not surveyed in 2005

Thames Basin Heaths SPA

Thames Basin Heaths SPA 5km driving catchment

Implemented SANGs

SANG Catchments (darker areas show overlapping catchments)

Areas within the 5km SPA catchment, but outside of a SANG catchment

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Kilometres

N

EPR
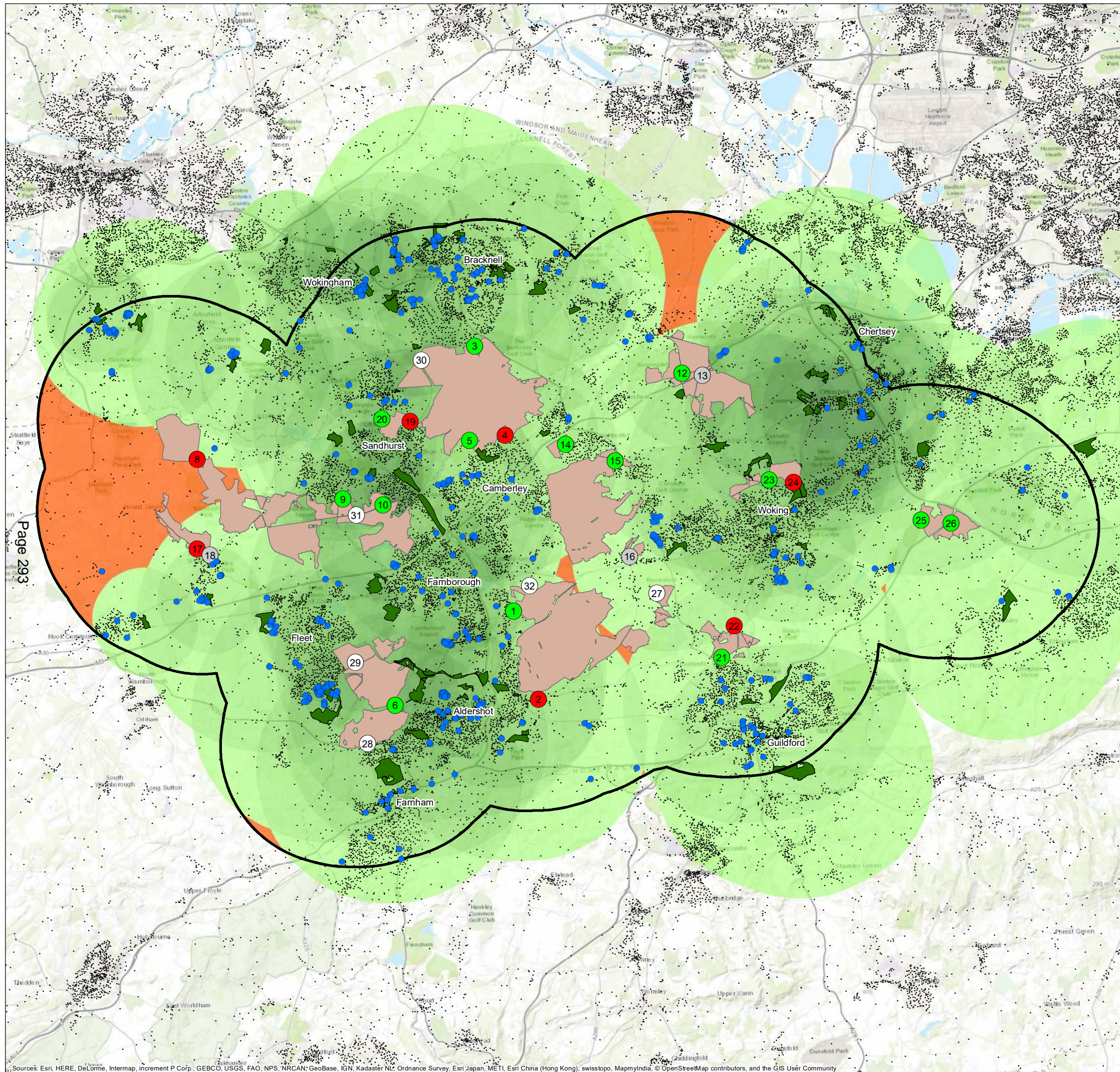
Ecological Planning & Research

CLIENT: Natural England

PROJECT: TBH SPA Visitor Survey

DATE: November 2018

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MAP 10b   SANG Catchments and Footfall
Compared to 2012/13

KEY

.   All residential postcodes (2018)

●   New Postcodes since 2013

Access Points/Change in Footfall

🟢   Decrease compared to 2012/13

⚪   Inconclusive - conflicting entry/exit results

🔴   Increase compared to 2012/13

🟫   Thames Basin Heaths SPA

▭   Thames Basin Heaths SPA 5km driving catchment

🟩   Implemented SANGs

🟩   SANG Catchments (darker areas show overlapping catchments)

🟧   Areas within the 5km SPA catchment, but outside of a SANG catchment

SCALE: 1:160,000 at A3

0 1 2 3 4 5 Kilometres

N

EPR

Ecological Planning & Research

CLIENT: Natural England

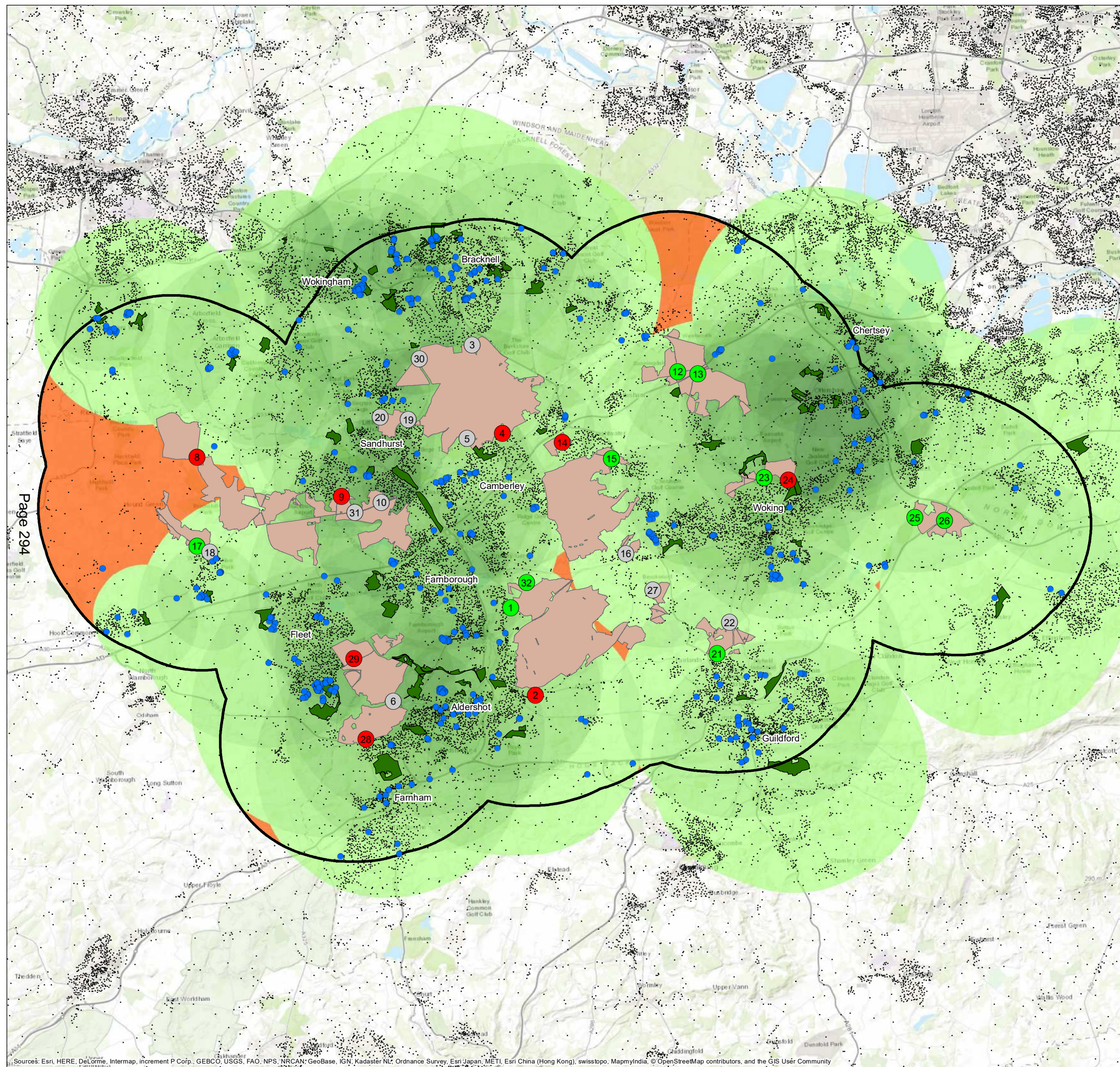PROJECT: TBH SPA Visitor Survey

DATE: November 2018

P18/35

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Committee/Panel:	Thames Basin Heaths Joint Strategic Partnership Board
Date:	19th September 2019
Title:	Thames Basin Heaths Financial Statement
Report From:	Administrative Body

Contact name: Jenny Wadham, Principal Accountant, Hampshire County Council

Tel: 01962 847193   **Email:**   Jennifer.wadham@hants.gov.uk

1.   Executive Summary

1.1   This report presents an update to the Joint Strategic Partnership Board (JSPB) on the financial position of the Thames Basin Heaths Strategic Access Management and Monitoring (SAMM).

1.2   The report includes the actual financial position at the 31st March 2019 and the projected financial position for the three years to 31st March 2022.

1.3   As at 31st March 2019 the balance in the Endowment Fund was £10.597m, of which £5.952m is held in investments under the management of Arlingclose, with the remaining £4.645m held by the Administrative Body. A further £1.0m was held in the Maintenance Fund at 31st March 2019, to pay for project expenditure.

1.4   It is projected that a further £973,000 will be added to Endowment Fund in the 2019/20 financial year, giving an anticipated total of £5.619m held as a cash balance and available to be invested.

1.5   Based on current projections of income and expenditure, the balance on the Endowment Fund would increase to £14.167m by 31st March 2022, of which £7.256m is projected to be held as a cash balance by the Administrative Body.

1.6   As per the current investment strategy, the balance on the maintenance fund will be maintained at no more than £1m in the same period, with any balances above that level transferred to the Endowment Fund.

1.7   It is recommended that the JSPB consider taking further advice from Arlingclose as the appointed independent financial advisors, about potential future investments to utilise the balance held by the Administrative Body.

2.   Financial Position for the Year Ended 31 March 2019

2.1.   The financial position as at 31st March 2019 is summarised in the table in Appendix 1, and shows net income for the 2018/19 financial year of £3.050m. The balances in the Endowment Fund and Maintenance Fund as at 31st March 2019 are £10.598m and £1.0m respectively, as shown in Appendix 5.

2.2. This Endowment Fund balance includes £5.952m held in investments under the management of Arlingclose, with the remaining £4.645m held as a cash balance by the Administrative Body.

2.3. A further £1.0m was held in the Maintenance Fund at 31st March 2019, to pay for project expenditure.

2.4. Actual income received by the Administrative Body for the 2018/19 financial year totalled £3.516m, to add to the £10.445m total income received to 31 March 2018. This income is split between the Endowment and Maintenance Funds on a 70%:30% basis, in accordance with the SAMM agreement (section 3.2).

2.5. In addition, £84,744 was accrued as dividend income on the £6.0m investments made during the year and managed by Arlingclose, representing a 5.41% equivalent annual return on investment. The JSPB has previously agreed that the dividend income should be reinvested in the investments made. The value of the investments held had decreased slightly by £132,327 (2.2%) as at 31 March 2019, however it should be noted that Arlingclose had advised in their presentation to the JSPB on 6th December 2018 that as the CCLA fund is a property fund, high transaction costs mean an initial reduction in value is to be expected.

2.6. Costs of £466,302 were incurred in the 2018/19 financial year, adding to the £1.849m costs incurred to 31 March 2018.

2.7. The £3.516m income received in 2018/19 is a £53,000 increase on the £3.463m projection reported to the JSPB in the March meeting, with the actual costs being a £15,236 decrease on the March projected position.

2.8. It was previously reported that savings were expected to be made on travel and subsistence costs, due to the move to the new office closer to the SPA combined with the new leased vans. The reduction in costs is largely due to those savings being even higher than anticipated, as well as a contingency provision made for maintenance of the vans that has not been required.

2.9. The net income for the financial year of £3.050m has allowed a further transfer to be made from the Maintenance Fund to the Endowment Fund at the end of March 2019, to maintain the balance in the Maintenance Fund at £1m as per the investment strategy agreed by the JSPB at the meeting on 6th December 2018.

2.10. The investment strategy also provided for the level of the balance to be retained in the Maintenance Fund to be reviewed on an annual basis. The £1m level set remains the equivalent of approximately two years running costs and it is therefore recommended that the JSPB approves this as a suitable level going forwards, until the next annual review.

3. Projected Financial Position for the 2019/20 to 2021/22 Financial Years

3.1. The projected financial position for the current financial year to 31st March 2020 is shown in Appendix 2, with a more detailed analysis of the projected income for the year shown in Appendix 3. A summary of the projected financial position for the three years to 31st March 2022 years is shown in Appendix 4.

3.2. The projections have been based on the existing Natural England staffing structure for the project, and are therefore subject to change should the approved staffing structure be changed as a result of other papers being taken to this meeting.

3.3. The original SAMM business plan envisaged that approximately £1.6m annual tariff income would be required over the period that developers were paying the tariff to ensure that annual running costs could be met whilst also allowing for 70% of total income to be transferred to the Endowment Fund to ensure the financial sustainability of the SAMM in perpetuity.

3.4. Based on information provided by each of the partners, it is projected that £1.7m tariff income will be received in the 2019/20 financial year, with further projected tariff income for the 2020/21 and 2021/22 financial years of £1.4m and £1.7m respectively.

3.5. Tariff income forecasts are used to inform future cash flows and to assist the Board in making decisions about the level of risk that will need to be taken to achieve the necessary investment returns to fund the SAMM activity on a long term basis.

3.6. The SAMM business plan also allowed for expenditure of approximately £500,000 per annum on an ongoing basis. Actual ongoing expenditure (with inflation) is expected to be £508,000 for 2019/20, rising to £532,000 by 2021/22, based on current approved staffing and activity levels, with approximately £20,000 every four years for the SPA visitor survey.

3.7. In previous years, actual annual expenditure has not reached these levels, primarily because fewer wardens have been recruited than initially planned. The project is currently forecast at full approved staffing levels of six full time and six seasonal workers, a communication officer, an education officer and a project manager.

3.8. Based on the current projections of income and expenditure, it is expected that a further £973,000 will be added to the Endowment Fund in the 2019/20 financial year, giving a total of £5.619m held as a cash balance available to be invested.

3.9. Over the next three financial years the Endowment Fund held as a cash balance is expected to increase to £7.256m by March 2022, as shown in Appendix 5. This is on the assumption that the balance within the Maintenance Fund will be maintained at a maximum of £1m.

3.10. It is recommended that the JSPB consider taking further advice from Arlingclose as the appointed independent financial advisors, about potential future investments to utilise the balance held by the Administrative Body.

4. Investment of funds in the Endowment Fund

4.1. Tariff income is collected by LPAs and passed to the Administrative Body. This tariff income is used to fund current project expenditure (the Maintenance Fund) and to accumulate sufficient balances to fund future project expenditure and the cost of long term maintenance and protection of the SPA (the Endowment Fund).

4.2. Under the terms of the SAMM agreement (section 5.3) the JSPB is given responsibility to review the value and performance of the Endowment Fund on a regular basis and provide direction as to when, how and from whom the services of an Independent Financial Advisor are to be procured.

4.3. The SAMM agreement envisaged the management of the balance in the Endowment Fund to be undertaken by an Independent Financial Advisor, to maximise the return achieved within the investment guidelines set by the JSPB.

4.4. Under the direction of the JSPB, Arlingclose were appointed as the Independent Financial Advisors from 1st December 2018 on a rolling annual contract, and initial investments totalling £6.0m were made.

4.5. Cash fund balances are currently held by the Administrative Body, receiving interest at an assumed rate of 0.75%. Under the terms of the SAMM agreement, the Administrative Body is required to pay interest at not less than 0.25% below the Bank of England base rate, with that base rate currently standing at 0.75% since August 2018.

5. Recommendations

5.1. It is recommended that the JSPB:

- Agrees the financial position for the year ended 31 March 2019, as shown in Appendix 1

- Confirms that a balance of £1m is the appropriate level for the Maintenance Fund, thereby approving resulting transfers from the Maintenance Fund to the Endowment Fund, until the next annual review.

- Notes the projected financial position for the three financial years to 31st March 2022

- Notes the actual cash balance held within the Endowment Fund as at 31st March 2019 of £4.645m and the projected balance of £7.256m by 31st March 2022

- Considers taking further advice from Arlingclose as the appointed independent financial advisors, about potential future investments to utilise the Endowment Fund balance held by the Administrative Body.

Appendix 1 - Financial Summary to 31 March 2019

Income	Cumulative to 2016/17 £	2017/18 £	2018/19 £	Total £
Bracknell Forest BC	1,218,727	411,810	943,163	2,573,700
Elmbridge BC	247,204	59,246	90,683	397,133
Guildford BC	794,279	178,952	286,395	1,259,626
Hart BC	729,766	1,209,774	737,515	2,677,055
Runnymede BC	285,390	107,465	50,400	443,255
Rushmoor BC	484,852	193,687	332,177	1,010,716
Surrey Heath BC	627,758	325,909	317,862	1,271,529
Waverley BC	210,925	125,102	35,998	372,025
Windsor & Maidenhead RB	142,913	2,131	21,524	166,568
Woking BC	497,068	638,146	78,533	1,213,747
Wokingham BC	1,294,407	593,669	569,499	2,457,575
Interest	39,417	26,470	52,150	118,037
Total Income	**6,572,706**	**3,872,361**	**3,515,899**	**13,960,966**
Expenditure				
Project costs Natural England	1,213,727	429,618	430,142	2,073,487
Administration fee Natural England	59,480	11,581	12,827	83,888
Financial Administration HCC	115,000	20,000	20,000	155,000
Investment advice			3,333	3,333
Total Expenditure	**1,388,207**	**461,199**	**466,302**	**2,315,708**
Net Income/(Expenditure)	**5,184,499**	**3,411,162**	**3,049,597**	**11,645,258**
Investment income*	**0**	**0**	**84,744**	**84,744**

* Investment income is the projected dividend income receivable on the investments with Arlingclose, which it has been agreed will be reinvested and is therefore shown separately.

Appendix 2 – Projected Financial Summary for the year to 31 March 2020

2019/20	Budget	Actuals to date	Outturn Forecast	Variance to Budget
Income	**£**	**£**	**£**	**£**
Bracknell Forest BC	408,683	102,554	408,683	0
Elmbridge BC	53,070	0	53,070	0
Guildford BC	0	0	0	0
Hart DC	311,400	(524,735)	311,400	0
Runnymede BC	35,875	7,560	35,875	0
Rushmoor BC	338,578	66,117	338,578	0
Surrey Heath BC	120,000	11,956	120,000	0
Waverley BC	29,340	29,340	29,340	0
Windsor & Maidenhead RB	56,595	0	56,595	0
Woking BC	193,158	15,352	193,158	0
Wokingham BC	186,712	41,748	186,712	0
Interest	52,000	0	52,000	0
Total Income	**1,785,411**	**(250,108)**	**1,785,411**	**0**
Expenditure				
Natural England Staff Costs	416,521	100,014	416,521	0
Natural England Project Costs	42,854	0	42,854	0
Natural England Admin Fee	18,419	0	18,419	0
HCC Admin Fee	20,000	0	20,000	0
Investment Advice Cost	10,090	6,667	10,090	0
Total Expenditure	**507,884**	**106,681**	**507,884**	**0**
Net Income/(Expenditure)	**1,277,527**	**(356,789)**	**1,277,527**	**0**
Investment income**	**304,237**	**0**	**304,237**	**0**

* Interest on cash balances is the projected interest receivable on balances held by the Administrative Body.

** Investment income is the projected dividend income receivable on the investments with Arlingclose, which it has been agreed will be reinvested and is therefore shown separately.

Appendix 3 – Detailed Income Summary

	Previous years	2019/20					
		Budget	Actuals to date	Notified contribut-ions	Forecast Qtr 1	Projected total	Variance
INCOME	£	£	£	£	£	£	£
Bracknell Forest BC	2,573,700	408,683	102,554	1,980	304,149	408,683	0
Elmbridge BC	397,133	53,070	0	53,070	0	53,070	0
Guildford BC	1,259,626	0	0	0	0	0	0
Hart DC	2,677,055	311,400	(524,735)	524,735	311,400	311,400	0
Runnymede BC	443,255	35,875	7,560	0	28,315	35,875	0
Rushmoor BC	1,010,716	338,578	66,117	0	272,461	338,578	0
Surrey Heath BC	1,271,529	120,000	11,956	0	108,044	120,000	0
Waverley BC	372,025	29,340	29,340	0	0	29,340	0
Windsor & Maidenhead RB	166,568	56,595	0	0	56,595	56,595	0
Woking BC	1,213,747	193,158	15,352	40,403	137,403	193,158	0
Wokingham BC	2,457,574	186,712	41,748	0	144,964	186,712	0
Interest	118,038	52,000	0	0	0	52,000	0
Total Income	**13,960,966**	**1,785,411**	**(250,108)**	**620,188**	**1,363,331**	**1,785,411**	**0**
Maintenance Fund	**4,365,924**	**535,623**	**(75,033)**	**186,056**	**408,999**	**535,623**	
Endowment Fund	**9,595,042**	**1,249,788**	**(175,077)**	**434,132**	**954,332**	**1,249,788**	

NB the above income relates to income received by the Administrative Body only and excludes dividend income.

Appendix 4 – Projected Income and Expenditure 2019/20 to 2021/22

Income	Previous years £	Projected 2019/20 £	Projected 2020/21 £	Projected 2021/22 £
Bracknell Forest BC	2,573,700	408,683	162,153	162,153
Elmbridge BC	397,133	53,070	6,811	6,811
Guildford BC	1,259,626	-	-	-
Hart BC	2,677,055	311,400	311,400	311,400
Runnymede BC	443,255	35,875	11,305	7,525
Rushmoor BC	1,010,716	338,578	376,439	246,091
Surrey Heath BC	1,271,529	120,000	150,000	-
Waverley BC	372,025	29,340	-	-
Windsor & Maidenhead RB	166,568	56,595	56,595	56,595
Woking BC	1,213,747	193,158	193,158	-
Wokingham BC	2,457,575	186,712	141,963	946,674
Interest on cash balances	118,037	52,000	59,000	68,000
Total Income	**13,960,966**	**1,785,411**	**1,468,824**	**1,805,249**
Total Expenditure	**2,315,708**	**507,884**	**519,840**	**531,765**
Net Income/(Expenditure)	**11,645,258**	**1,277,527**	**948,984**	**1,273,484**
Investment Income*	**84,744**	**304,237**	**319,449**	**335,422**

* Investment income is the projected dividend income receivable on the investments with Arlingclose, which it has been agreed will be reinvested and is therefore shown separately.

Appendix 5 – Projected Endowment Fund Balance

	2018/19 Actuals £	2019/20 Projected £	2020/21 Projected £	2021/22 Projected £
Income	3,515,898	1,785,411	1,468,824	1,805,249
70% to Endowment Fund	2,465,747	1,249,788	1,028,177	1,263,674
30% to Maintenance Fund	1,050,151	535,623	440,647	541,575
Expenditure	466,302	507,884	519,840	531,765
Maintenance Fund:				
Balance brought forward	1,466,366	1,000,000	1,000,000	920,807
Transfer (from)/to income	583,849	27,739	(79,193)	9,810
Transfer to endowment fund	(1,050,215)	(27,739)	-	-
Balance carried forward	**1,000,000**	**1,000,000**	**920,807**	**930,617**
Endowment Fund:				
Held as cash balances by Administrative Body				
Balance brought forward	7,129,295	4,645,257	5,618,547	6,327,275
Transfer (from)/to income	2,465,747	945,551	708,728	928,252
Investment	(6,000,000)	-	-	-
Transfer from maintenance fund	1,050,215	27,739	-	-
Balance carried forward	**4,645,257**	**5,618,547**	**6,327,275**	**7,255,527**
Held in investments				
Balance brought forward	0	5,952,417	6,250,038	6,562,540
Investment made	6,000,000	0	0	0
Investment income reinvested *	84,744	297,621	312,502	328,127
Profit/(Loss) on investment **	(132,327)	0	0	0
Balance carried forward	**5,952,417**	**6,250,038**	**6,562,540**	**6,890,667**
TOTAL ENDOWMENT FUND	**10,597,674**	**11,875,201**	**12,903,378**	**14,167,052**

* Investment income reinvested has been estimated at 5%
** Based on market value at 31st March 2019 and excluding any exit costs

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Committee/Panel:	Thames Basin Heaths Joint Strategic Partnership Board
Date:	19th September 2019
Title:	Investment working group update
Report From:	Investment working group

Contact name:	Jenny Wadham, Principal Accountant, Hampshire County Council		
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1. Introduction

1.1. This report presents an update to the Joint Strategic Partnership Board (JSPB) on the investments made and the investment strategy.

2. Investment Strategy Statement

2.1. At the meeting of 6th December 2018 the Investment Working Group presented a draft investment strategy document (Appendix 1) that was agreed in principle, subject to a legal opinion on the document and any comments from partner authorities.

2.2. No amendments have been raised with the Investment Working Group, and therefore the JSPB is requested to agree that the strategy can now be formally signed off by the JSPB, or alternatively agree any required amendments to the strategy document.

2.3. The investment strategy provided for review of the strategy at no more than two yearly intervals, with the next review being due by December 2020.

3. Independent financial advisors – contract management

3.1. The contract with Arlingclose to provide independent financial advice to the Board began on 1 December 2018.

3.2. The contract will be renewed annually, unless the JSPB gives written notice to the contrary at least 3 months prior to the contract renewal date (ie by 1st September each year).

3.3. This was discussed at the JSPB meeting of 8 March 2019, with regard to retaining the services of Arlingclose for the period 1 December 2019 to 30 November 2020. It is expected that the JSPB will consider whether the services of Arlingclose will be retained for the period 1 December 2020 to 30 November 2021 at the meeting currently planned for June 2020.

3.4. At the meeting of 8 March 2019, it was agreed that the JSPB would be presented with updates on these investments every six months, and a summary of the updated value of the investments is shown in section 4 below.

3.5. Arlingclose have indicated they would be happy to attend future JSPB meetings to give an overview of the performance of the investments made and to give advice on future investments. The JSPB should consider whether they wish to invite Arlingclose to the next, or a future, JSPB meeting.

4. Update on investments made

4.1. At the meeting of 6 December 2018, the JSPB agreed to the investment of £6m from the Endowment Fund, on 17 December 2018 (or practically as soon thereafter as possible), to be split equally between the three funds recommended by Arlingclose:

- CCLA Property Fund - £2m

- Kames Diversified Monthly Income Fund - £2m

- Schroder Income Maximiser Fund - £2m

4.2. These investments were made on behalf of the JSPB by Hampshire County Council (as the Administrative Body) in December 2018 and February 2019.

4.3. The values of those investments as at 31st March 2019 and the dividends to 31st March 2019 are shown in the table below:

Investment	CCLA £'000	Kames £'000	Schroder £'000	Total £'000
Amount invested	2,000.0	2,000.0	2,000.0	**6,000.0**
Value as at 31/03/19*	1,833.6	2,000.0	2,035.1	**5,868.7**
Growth	**(166.4)**	**0.0**	**35.1**	**(131.3)**
Dividends received	0	24.3	0	**24.3**
Dividends accrued	20.1	9.1	31.3	**60.4**
Total dividends	**20.1**	**33.4**	**31.3**	**84.7**

*Market value, exclusive of any exit fees. No specific market value is available for the Kames fund.

5. Updated Cash Flow Forecast

5.1. As has been highlighted with previous cash flow forecasts, there are significant difficulties in making accurate long-term projections and variations in tariff income, project costs, inflation and investment returns could have a significant impact on the long-term financial viability of the partnership.

5.2. Tariff income forecasts have been compiled by the Administrative Body using projections from the respective planning authority partners. It is important that these forecasts are as accurate as possible and that the Administrative Body is informed of changes in a timely manner, so that figures can be updated to assist the JSPB in making sound investment decisions.

5.3. The income forecasts currently do not include the impact of any inflationary uplift to the tariff charged to developers. This was raised at a previous meeting and a separate report is being brought to this meeting on increasing the tariff. In view of this, the detailed cash flow forecasts have not been updated since the 6th December report, pending the outcome of the tariff review. However, the projected tariff income and Fund balances for the financial years to 31st March 2022 are shown in the table below:

	2018/19 Actuals £'000	2019/20 Projected £'000	2020/21 Projected £'000	2021/22 Projected £'000
Total tariff income	3,464	1,733	1,410	1,737
End of year balances held as cash funds by the Administrative Body				
Maintenance Fund	1,000	1,000	921	931
Endowment Fund	4,465	5,619	6,327	7,256

5.4. In view of the cash balance currently held within the Endowment Fund, it is recommended that the JSPB consider taking further advice from Arlingclose about potential future investments to utilise the balance.

6. Investment decisions

6.1. Investment decisions are to be made by the JSPB and all risks associated with these investments rest solely with the JSPB, as the Administrative Body cannot provide financial advice and therefore accepts no responsibility for the decisions made.

6.2. Any instructions will need to clearly document the amount to be invested (or sold), the investment to be bought (or sold) and the date on which the investment is to be made.

6.3. Before any investments are made, the Administrative Body will check that the investment instructions have fully taken account of, and are in accordance with, written financial advice provided to the JSPB, as required by the SAMM agreement. The Administrative Body will not make any investments on behalf of the JSPB that are not in accordance with documented independent investment advice.

6.4. It should be noted that potential investments are subject to any relevant minimum/maximum limits and timing restrictions of particular funds. Furthermore, as investments are made on behalf of the JSPB by Hampshire County Council (as the Administrative Body), the investments must therefore also be made within Hampshire County Council's Treasury Management Strategy Statement limits (the HCC TMSS).

6.5. The HCC TMSS is approved in February each year for the year ahead, and it is therefore recommended that the JSPB consider what their potential investment amounts could be for the next year to ensure provision is made for this in the HCC TMSS.

6.6. Although investments are made on behalf of the JSPB by Hampshire County Council as the Administrative Body, all investment risk sits with the JSPB.

7. Recommendations

7.1. It is recommended that the JSPB:

1) Approves the investment strategy document originally discussed at the 6[th] December 2018 meeting or determines any amendments to be made

2)   Notes the next review of the investment strategy document should be undertaken by December 2020

3)   Notes the annual timescales for deciding whether or not to renew the contract with Arlingclose, and adds this to the forward agenda for a decision to be made at the June 2020 meeting for the year from 1st December 2020

4)   Agrees when to next invite Arlingclose to attend a meeting of the JSPB

5)   Notes the value of the investments made and dividends due as at 31st March 2019

6)   Considers taking further advice from Arlingclose about potential future investments to utilise the balance within the Endowment Fund

7)   Notes the requirements surrounding investment decisions, before any investments can be made by the Administrative Body on behalf of the JSPB

8)   Considers the potential investment amounts for the coming year to enable this to be built into the Hampshire County Council Treasury Management Strategy Statement.

Appendix 1 – Copy of the Investment Strategy Statement agreed by the JSPB at the meeting of 6ᵗʰ December 2018

<div align="center">

Thames Basin Heath Joint Strategic Partnership Board
Investment Strategy Statement

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In 2009 the Thames Basin Heath Joint Strategic Partnership Board (JSPB) was formed as part of the Thames Basin Heaths SPA – Strategic Access Management and Monitoring Project Memorandum of agreement.

1. **Introduction.**

   1.1. The South East Plan (2009) contained proposals for over 55,000 new residential dwellings around the SPA and includes a specific policy identifying a series of mitigation measures which new developments must provide in order to avoid having an adverse effect on the SPA.

   1.2. The mitigation to be provided by all new residential dwelling includes the provision of a Strategic Access Management and Monitoring Project. Each Local Authority is required to collect a fixed tariff from developers for each new dwelling and to transfer these as a contribution towards a joint fund for the Project. The contributions will be collected and administered by the Administrative Body.

   1.3. It was agreed that the first Administrative Body would be Hampshire County Council.

   1.4. The JSPB was established to provide the vehicle for joint working between local authorities and other organisations responsible for protection of the Thames Basin Heaths SPA. The Contribution Fund provides for:

      1.4.1. The provision of a Project Coordinator including any recruitment costs, redundancy costs and other related employment costs.

      1.4.2. Wardening of the SPA sites

      1.4.3. Survey and monitoring of visitor numbers and patterns, planning applications and the three-bird species on the SPA

      1.4.4. Interpretation and education services including the provision of an Education and Communications Officer including any recruitment costs, redundancy costs and other related employment costs associated with this role.

      1.4.5. Treasury functions and other management fees

      1.4.6. A long-term fund to enable the Project to be funded in perpetuity

This document defines the governance arrangements for the long-term fund.

2. **Investment Working group**

   2.1. The Investment Working Group (IWG) will be a Working Group of the JSPB.

   2.2. The Investment Group will consist of a minimum of three members who are nominated by the JSPB together with the current Independent Financial Advisor (IFA), Arlingclose.

   2.3. Where a member of the IWG is a Councillor from Hampshire County Council, the member will not be involved in deciding which investments to make.

   2.4. Any involvement of officers of the Administrative Body will not be in a decision making or advisory capacity and will be purely to support financial administration, as set out in the SAMM Agreement. The Administrative Body cannot provide financial advice.

   2.5. Membership of the IWG will be reviewed bi-annually.

2.6. The Investment Group will meet at least six monthly and, on an ad-hoc basis as required. With a plan of meetings at the beginning of each financial year, taking into account commitments of partners. At least 10 days' notice of any ad-hoc meeting will be given for each meeting. The Working Group may meet "electronically" if required. In such a circumstance it will be made clear by what date members are required to respond.

2.7. The JSPB will delegate authority to the IWG, in consultation with the Chairman, to take immediate action to sell an investment should it become apparent that the investment is likely to fail.

2.8. the Investment Group will report all recommendations to the JSPB, these will be made by the councillor members having considered the advice of the IFA.

2.9. It is proposed that representatives of the IFA should attend the relevant JSPB meetings.

2.10.   The role of the Group is to review and recommend appropriate policies/actions to the JSPB in respect of the following:

    2.10.1. The Strategic Asset Allocation of the Fund.
    2.10.2. The investment performance of the Fund.
    2.10.3. New investment products/mandates and their suitability for investment by the Fund.
    2.10.4. To recommend the appointment or termination of investment mandates.
    2.10.5. Such other matters as may be relevant to managing the investments of the Fund.

2.11. The final decisions on any proposed investment will be made by the JSPB.

3. Investment Objectives

3.1. Investment objective were agreed at the JSPB meeting of the 21st September 2018.

3.2. Approximately £1 million should be kept in cash in the Maintenance Account, to fund projected expenditure for a period of two years. This sum will be reviewed annually.

3.3. The primary aim would be to generate income, rather than capital growth.

3.4. The investment should have the lowest risk possible.

3.5. A target rate of return on investment should be calculated using the current balance held within the Endowment Account, plus a reasonable assumption of the future income (as provided by the Partners) to give a target percentage rate of return required to meet projected costs in perpetuity.

3.6. The IFA would be asked to advise on a recommended mix of investment types anticipated to meet that target rate of return at the lowest risk, and specific funds that would meet these requirements.

3.7. The JSPB should acknowledge that the target rate of return will vary, depending on actual income and expenditure, and that the target percentage rate of return may not be achieved. In either of those circumstances it would be necessary to review and revise the investment strategy, and/or to review and revise both the planned expenditure and the SAMM charges accordingly.

4. Investment strategy statement.

4.1. This is the first such statement published by the JSPB and it will be reviewed regularly by the IWG and at no more than 2 -year intervals. Recommendations will be made to the JSPB who will consider any proposed changes.

A requirement to invest fund money in a wide range of instruments.

4.1.1. The JSPB policy is that the fund should have a highly diversified investment portfolio spread across different asset classes and different asset managers using differing approaches as appropriate. This ensures that the fund money is invested in a wide range of instruments.

4.1.2. JSPB has established an Investment Working Group which meets bi-annually to review the fund's performance, asset allocation and ability to meet its target return. In addition, the Investment Working Group reviews potential new investment ideas and products and opines whether such ideas are consistent with the investment strategy of the fund and a suitable investment.

4.1.3. The Investment Working Group receives advice from suitably qualified Independent Financial Adviser, Arlingclose.

4.1.4. To achieve sufficient diversification the fund divides assets across 4 broad buckets: equities, bonds, real assets and absolute return strategies. The size of each bucket will vary depending on investment conditions.

4.1.5. Any investment strategy will have associated risks, including primarily that of not meeting the returns required to ensure the long-term ability of the fund to pay for the work of Natural England who are currently the project delivery team. To mitigate these risks the Investment Working Group regularly reviews both the performance and the expected returns from the portfolio to measure whether it has met and is likely to continue to meet its return objective,

5. **The JSPB's assessment of the suitability of particular investments and types of investments.**

   5.1. In assessing the suitability of investments JSPB takes into account a number of factors including prospective return, risks, concentration or diversification of risk as well as geographic and currency exposures.

   5.2. Performance benchmarks are set for the fund as a whole (target return UK CPI+3%) as well as for individual allocations.

   5.3. In ensuring the suitability of investments the JSPB pays regard to both the potential returns and risk (including possible interactions with other investments in the portfolio). JSPB will also consider the reputational risk of being connected with or investing in any investment proposal. JSPB expects its managers to consider Environmental, Social and Governance issues when making an investment.

   5.4. The IFA will advise the IWG on returns and the volatility of those returns from investments on a quarterly basis.

6. **The JSPB's approach to risk, including the ways in which risks are to be measured and managed**

   6.1. The JSPB will seek the lowest risk consistent with meeting the investment objectives.

   6.2. Looking specifically at investment risk JSPB is of the view that diversification of the fund investment portfolio will help to minimise investment risk (volatility of returns). The fund targets a long-term return of UK CPI+3%; this would be sufficient for it to meet its long-term liabilities. In setting the investment strategy, the JSPB decided that this return should be achieved with a low degree of volatility –the fund targets volatility below 10% per annum over the medium term.

   6.3. As a patient long-term investor, the fund is prepared to ride-out short-term volatility in investment markets and may, if suitable opportunities arise, adapt its investment strategy accordingly.

7. **The JSPBs policy on how social, environmental or corporate governance considerations are taken into account in the selection, non-selection, retention and realisation of investments.**

The JSPB accepts that there are differing views on how social, environmental and corporate governance considerations should be taken into account and believes that no "one size fits all" policy can possibly be implemented across a diverse portfolio. Nevertheless, JSPB seeks to protect its reputation as an institutional investor and ensures that its investment managers take into account these issues when selecting investments for purchase, retention or sale. JSPB will not place social, environmental or corporate governance restrictions on its managers but relies on them to adhere to best practices in the jurisdictions in which they are based, operate and invest.