

Penhale Dunes SAC

Visitor Survey Results

Final Version

2016

Summary

Survey Sessions

- Surveys were conducted at two locations at Penhale SAC, where surveyor effort was split between the two locations, surveys were coded as undertaken at the laybys.
- Survey effort across the locations and between seasons was not equal due to resource constraints
- 136 hours of survey work was undertaken at Penhale
- 406 visitor interviews were completed and 507 people with 696 dogs were recording entering the site during the survey sessions
- Interview success rate was 86% with interview refusal from 65 approached groups

Overview

- 406 completed interviews reflect the visiting patterns of 706 people
- 93% (378) of the 406 interviewed groups were accompanied by a total of 586 dogs
- 91 (22%) of interviews were conducted in Autumn, 104 (26%) in Winter, 121 (30%) in Spring, and 90 (22%) in Summer
- Average group size during the Autumn, Spring and Summer surveys was 1.8 and 1.5 in Winter

Visit Purpose

- Across the annual survey period, 87% (353) of interviewed groups were local residents and 13% (53) County visitors
- In Winter, 98% of interviewed groups were local residents, 90% in Autumn and 85% in Spring
- In Summer, 28% of interviewed groups were non-local residents

Visitor Activities

- 87% of groups stated their visit activity as 'dog walking'
- Dog walking was the most frequently cited activity across all survey seasons
- Other activities undertaken at Penhale SAC include walking, wildlife watching, jogging, horse riding, family outing and additional interests stated by groups reflect the rich natural history of the site and included 'St. Piran's Cross', 'archaeology', 'geology' and 'historic interest'
- No water focussed activities were undertaken by groups during their interviewed visit

Visit Frequency

- A higher proportion of frequent visitors were interviewed during the Autumn and Winter survey sessions
- 30% of all groups make over 180 annual visits
- 30% of all groups make between 60 and 180 annual visits
- 78% of all groups make over 20 annual visits to Penhale

Time of Day

- The most frequently stated time to visit across the seasons was between 09:00 and 12:00
- The time visitors tended to make a visit varied by season with daylight hours

Overview of local and non-local residents

- 353 (87%) of interviewed groups were local residents and 53 groups (13%) were non- local resident groups
- 84% of all visitors recorded during the interviews were associated with interviewed local resident groups
- Average groups size of local resident groups was 1.7 in comparison to 2.1 for non-local resident groups
- 95% of local resident groups were accompanied by at least one dog
- 530 (90%) of dogs were recorded with local resident groups in comparison to 56 (10%) with non-local resident groups

Local and non-local residents – Visit Frequency

- 34% of local resident groups make over 180 annual visits
- 33% of local resident groups make between 60 and 180 annual visits
- 86% of local resident groups make over 20 annual visits to Penhale
- The majority of non-local resident groups 15 (32%) make between 2 and 12 annual visits

Seasonality of Visits

- 58% of groups indicated they visit all year round

- Of local resident groups 64% indicated they visit all year round
- 30% of non-local resident groups tend to visit more over the Summer

Visit Duration

- 53% of visits by local residents groups were less than an hour
- 94% of groups stated their visit duration was less than two hours
- 19% of non-local resident groups stated their visit was/would be longer than two hours
- 4% of local resident groups stated their visit was/would be longer than two hours
- Coarse estimates based on average walking speed indicate a visitor group would cover 2.4km on site within 30 minutes

Visitor Activities (local residents in comparison to non-local residents)

- A higher proportion of local residents were dog walking in comparison to non-local residents (90% vs 67%)
- 87% of all activity responses cited dog walking
- Other activities undertaken but not during the interviewed visit include wildlife watching, windsurfing, horse-riding, jogging and family outings

Why visitors specifically chose to visit Penhale

- 28% (234) of all responses indicate visitors are specifically drawn to Penhale because of 'the ability to let the dog off the lead'
- 17% of local resident responses indicated they are specifically drawn to Penhale as it is 'close to home'
- 118 additional comments were provided by local residents groups and the majority 21% specifically made their visit to Penhale as the site was dry
- Across the seasons Penhale was specifically visited by some local residents in preference to other destinations, as it was a large, dry and dog friendly

Response to speculative on-site change

- 59% of local resident groups responses suggested there would be no change in the time spent at Penhale in light of speculative change
- Possible changes that would see local residents spending more time on site include 'provision of dog waste bins', 'beach manager/warden' and 'improvements to path surfacing/routing'
- Possible changes that would see local residents spending less time on site include 'dogs required to be on the leads', 'car parking charges' and 'site became busier'

Additional comments from local residents

- Widespread issue with dog poo at the site
- Local resident groups stated they would like to see more dog bins and the bins emptied more frequently
- Strong affinity with the site with local resident groups
- Some local resident groups commented they don't visit the site in Summer because of adders

Features that would attract visitors to alternative sites

- Alternative visit destinations which were 'more dog friendly', 'closer to home' and have a 'cheap or free parking provision' are features which would attract a proportion of local resident groups
- Local residents have a strong connection to Penhale and 28% of responses stated 'nothing/no features' would attract them to an alternative site
- Local resident responses suggested that 18% of groups would be attracted to a site that was 'more dog friendly'

Other popular visit destinations of local residents

- The most frequently cited other visit destinations cited by local resident groups were Perranporth Beach, Beaches, Tehidy, Idless Woods, St. Agnes, Crantock and Trelissick

Transport

- 90% of all groups arrived by car
- 95% of local resident groups arrived by car and 4% by foot
- 55% of non-local residents arrived by car and 45% by foot

Frequent visitors to the site

- Local resident groups who were dog walking were the most frequent visitors to the site
- 34% of local dog walkers make over 180 annual visits
- 80% of local dog walkers make a minimum of 20 annual visits
- 97% of local dog walkers make a minimum of 12 annual visits
- 96% of local dog walkers arrive by car

Visitor Origin by Parish

- The visitor origin of 344 local resident visitor groups was captured
- 32% of local resident visitors resided in the Civil Parish of Perranzabuloe, 12% in Truro, 8% in Newquay and 6% in Kenwyn
- 14 postcodes of holiday accommodation from non-local resident visitor groups were captured and were all located in the Civil Parish of Perranzabuloe

Visitor Origin by Distance and Transport

- On average local resident groups who arrived by car lived 9.93km* from site with half living over 7.40km away
- 75% of local resident groups who arrived by car lived within 12.45km* of the site
- 50% of local resident groups who arrived by foot lived within 2.23km of their interview location

*Distance is straight line distance between visitors origin and interview location

Visitor Origin by Distance and Visit Frequency

- 75% of the most frequent visitors (those who make over 180 annual visits) lived within 7.91km * of the site
- 75% of local resident visitors who make at least 20 annual visits to the site lived within 12.37km* of the site
- 75% of local resident visitors who make at least 12 annual visits lived within 19.02km* of the site

*Distance is referred to as the straight line distance between visitor origin and interview location

Visitor Origin of Local Residents with Dogs by Transport Mode and Visit Frequency

- 75% of local resident groups with dogs who make >180 annual visits live within 7.98km
- 75% of local resident groups with dogs who make 60-180 annual visits live within 11.61km
- 75% of local resident groups with dogs that arrive by car live within 12.07km
- 75% of local resident groups with dogs that arrive by foot live within 7.17km

Zone Of Influence

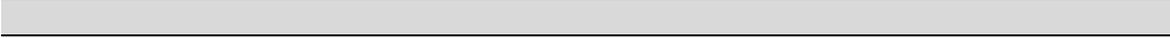
- Convex Hull and Euclidean buffers surrounding visitor origin of 75% of local residents at 12.5km are presented
- Convex Hull and Euclidean buffers surrounding visitor origin of 75% of local residents who make at least 12 annual visits at 19.0km to Penhale are presented
- The Convex Hull polygon and Euclidean buffers at 19.0km best describe the Zone of Influence of Penhale
- The Zone of Influence of a site should not be confused with the identification of a Zone of Payment. The Zone or Zones of Payment will fall within the Zone of Influence and should be informed by considering visit rate with distance from Penhale.

Visit Rates, Estimates and Predictions

- Visit rates, estimates and predictions were generated only from interviewed local residents and are not scaled up to encompass estimates from all local residents (those who were not interviewed on site) due to data constraints
- A high proportion of local residents living within 500m of the survey locations made recreational visits to Penhale
- Estimate 70% of visits originate from within 8,000m
- In light of a 23% increase in housing within 12,500m of Penhale, a 21% predicted increase in recreational visits is expected in the order of 6,300 new people visits per year (true value will be higher as it was not possible to account for the proportion of visitor groups interviewed in relation to those observed using the site)

Zone of Payments

- Evidence suggests two Zone of Payments within the Zone of Influence are appropriate for Penhale
- The first zone is recommended between 500m – 8000m
- The second zone is recommended between 8000m – 12,500m
- Data indicate the weighting of the first payment zone (500m – 8000m) should be 2.45 times that of the outer payment zone.



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1 Introduction

- 1.1 This document reports the analyses and findings from the visitor survey work undertaken at Penhale Dunes SAC between Autumn 2015 and Summer 2016. Current visitor patterns are examined and the Zone of Influence of Penhale identified.
- 1.2 The second part of this document then considers the number of houses surrounding the site and using the analysed data estimates current visits and visitor rates at varying distances from Penhale. The report then considers in light of predicting housing, the expected increase in recreational visits to Penhale and explores option to identify a 'Zone(s) of Payment' which would be to fund mitigation measures to alleviate any increase in recreational pressure which is likely to result in damage to the Protected Site as a result of in-combination development.

2 Methods

Methodological considerations

- 2.1 It is a substantial task to source, train and deploy multiple surveyors to gather and input consistent data. The visitor survey work went well and gathered an extensive and comprehensive set of information on visit patterns, however, there are some limitations to the data collected and collated.
- 2.2 Table 1 illustrates that while each site was surveyed through the year, there were some inconsistencies with both survey effort and the recording of tally data and on occasions, duplication of survey effort at a single location and it appears during some surveys a single surveyor covered both survey locations during a single session. As a result data are considered at a site level, as it was not possible to pinpoint the exact survey location of some of the interviews.
- 2.3 Unfortunately, visitor groups who had already responded to an interview request, were re-interviewed in some sessions. It was not possible to identify these questionnaires were duplicates and information from all surveys were included in the analyses. It is likely because of this duplication, visit rates and estimates may be elevated reflecting a higher proportion of visitors from specific distance bands as certain postcodes may have been overrepresented in the data. However, this is of minimal concern as it supports a precautionary approach

Data processing, manipulation and limitations

General

- 2.4 Visitor survey data were supplied in multiple files after input by each surveyor. There was some inconsistency between the digitised formats and notations. Where easily identified these were amended during consolidation of the files.
- 2.5 The data were briefly screened ahead of analyses and cleaned. Changes were made to the duplicate of the raw data file on which analyses were undertaken. The following checks and where anomalies were found, were amended.
- Groups who indicated they were dog walking but zero dogs were recorded with dogs – total of dogs recorded with group amended to 1 (76 questionnaires)

- Groups who were recorded as having dogs with them but the dog walking activity category had not been populated, the 'dog walking' activity category was checked (30 questionnaires)
- Activity noted as 'other' amended to bird and wildlife watching as respondents had cited 'photography of rare birds' and 'rare plant interest' (2 questionnaires)
- Group size recorded as zero when gender of visitors in the group was noted, for example 1 x F, 2 x M, 1 x F 1 x M. Group size corrected accordingly (20 questionnaires)
- Where group size and gender of respondents was not recorded value was populated with 2, the modal and mean value of groups size of visitors to Penhale from questionnaire which contained this data
- Where zero was entered for number of dogs in groups and the activity cited did not include dog walking, the zeros were replaced with blanks
- Where the time of day visit preference had not been populated but the respondent had stated a preferred time of day to visit, the relevant category was populated (9 questionnaires)
- Respondent had indicated they resided within Cornwall, yet the postcode supplied was out of County and their visit frequency category was low, visit purpose was amended to reflect they were a non-local resident (10 questionnaires)
- Respondent had indicated they lived outside of Cornwall, yet provided an in County postcode with a high visit frequency and additional comments to suggest they were indeed a resident, visit purpose amended to local resident (13 questionnaires)
- Respondent had commented they arrived at site by foot, but the bus transport category was checked, amended to arrive by foot (1 category)

Methods for data analyses

Time of Day

- 2.6 The survey asked interviewees whether they tended to visit the site at a certain time of day and multiple category responses were allowed. Screening of the data highlighted many additional respondent comments indicated their preferred visit time of day varied. An additional category was created for varied and populated according to the additional comments, so to include these data in analyses.

Response to speculative change

- 2.7 Visit groups were asked how speculative change would influence the amount of time they spent on site. Surveyors were able to indicate a group's response by marking one of four different categories; 'more', 'less', 'same' and 'don't know'. There was also additional free text space for comments.
- 2.8 Much of the digital input were inconsistent and categories fields contained values such as '1', '?', 'N/A', 'L', 'Maybe', 'Depends', '-'. Where the interviewee's response was obvious, the

data were amended and analysed, where the response was difficult to decipher, it was omitted from the analyses.

- 2.9 The free text comments from the response to change were not summarised and are not included in this report. The original data file contains these comments.

Additional comments on choice of Penhale as visit destination

- 2.10 Visitor groups were asked specifically why they visited Penhale rather than another local site and responses or comments which were respondent led were noted as free text. Some respondent stated 'other' and provided no additional details. Interviewee responses where additional text was recorded and those where it was not provided were summarised within the same 'other' category'
- 2.11 Additional 'other' detailed responses from local resident visitor groups were summarised independently and grouped where possible, for example if groups stated 'dry conditions on site', 'dry underfoot', 'dry' these were pooled under the 'Dry' category. The original data were copied and edited to reflect this grouping for analyses and were not updated in the original data file to keep detail provided by respondents. In total 81 respondent led comments were summarised from 353 local resident groups.

Other visit destinations of local resident groups

- 2.12 Visitor groups were asked to provide the names of other visit destinations they visited for similar purposes to the visit when they were interviewed. Groups could provide up to three visit destinations. These data were free text options completed by the surveyors and 627 responses were captured from 353 interviewed local resident groups.
- 2.13 The free text responses from the local interviewed groups were pooled, sorted and where possible standardised. Destinations which stated 'beach' after a location were categorised separately, for example Perranporth as a visit destination was categorised separately to Perranporth Beach.

Visitor origin

- 2.14 Postcode data from visitor groups were gathered during the face to face visitor surveys. Where visitor groups were not resident in Cornwall, the postcode of their accommodation was requested.
- 2.15 Postcodes were geocoded against a file supplied by Cornwall Council which contained all postcodes preceded by TR, EX and PL and derived from OS CodePoint Opendata. QGIS v 2.14.0 was used to geocode the information and undertake spatial analyses. Only postcodes or places within Cornwall were geocoded (either that of local residents or the location of local accommodation for non-local residents). The accommodation location of non-local residents was identified as valuable data and the survey was amended to capture these data during the Summer survey sessions.
- 2.16 Overall the origin of 101 interviewed visitor groups failed to geocode. In 40 interviews the visitors did not provide valid place name or postcode information of accommodation in Cornwall. The visitor origin data for the remaining 61 interviews were checked manually for digitation errors, such as confusion between alpha and numeric characters (0 and O) and also

spacing between the main stem and following characters, then checked against www.ukpostcode.co.uk, to ensure postcode validity. Only 17 local resident visitor groups and 1 non-local resident group provided the settlement of either their residential or visiting accommodation and this was manually geocoded against the point location provided on the OS OpenNames data file. The visitor origins of those interviewed who only provided the first stem of their postcode (TR3, TR16) were geocoded to the centroid of the postcode stem polygon, generated from merging polygons that contained the stem from the polygon postcode file supplied by Cornwall Council derived from OS CodePoint Opendata. In total, visitor origin information from 357 interviews were geocoded, 344 from local resident groups and 13 from non-local resident groups.

- 2.17 The straight line distance between a visitor groups origin and interview location were calculated using Distance Matrix from the qGIS fTool plugin. Where a surveyor had interviewed visitors across both the Perran Sands car park (location 2) and the laybys (location 3) over a single survey session, the layby location was used in the calculation given its more central location and proximity to multiple access points. Visitor origin was categorised by Polling District using OS OpenData BoundaryLine files 'Polling Districts GB' using the Vector analysis tool in qGIS v2.14.0.

Distance bands

- 2.18 Concentric ring buffers were created around both survey locations at 500m distance bands, which were dissolved to create a single ring around both locations. Spatial data were analysed using these distance bands

Visit frequency and buffer distance

- 2.19 To consider the spread of visits by groups who resided at varying distances from the survey location, the number of visitor postcodes per distance band was extracted. The visit frequency categories from each group were then allocated to their geographic distance band and the number of postcodes within each band, per visit frequency were totalled.
- 2.20 The assumed annual number of visits took the lowest value of each category, for example those groups who responded 'most days' (>180 annual visits) were assigned 180 visits, those who states they visit (60-180 annual visits) were assigned a value of 60 visits. Groups who stated it was their 'first visit' were assigned a value of 1 annual visit.
- 2.21 The minimum annual visit totals were summed across each distance band and calculated as a percentage of the visit total over the 136 hours of survey effort. The percentages were then summed with increasing distance band to create the cumulative frequency chart.

Housing estimates

- 2.22 Housing estimates were generated using a data supplied by Cornwall Council which contained data from the Royal Mail Postcode Address File (PAF) which details the number of residential, holiday and commercial delivery points associated with each postcode. Data were supplied for all postcodes within PL, TR and EX postcode stems.
- 2.23 Euclidean buffers at 500m distance bands were created around the survey locations and the sum of the residential delivery points for each postcode were summed within each distance band using GIS to generate housing estimates per distance band.

Visitor rate

- 2.24 Visit rates can be estimated from visitor survey data by considering the number and origin of visitors to the site in relation to the number of visitors recorded entering or leaving the site. This poses a challenge when looking to generate these estimates from the data gathered at Penhale. Whatever the reasons, the tally data were not consistently gathered and do not appear to reflect visitor movement. For example, during the Spring surveys 13 groups comprised of 185 individuals were observed entering the site (Table 1) which are not consistent with the information gathered during the interviews where 121 interviews were completed with a total group size of 220, far higher than both the number of individuals and groups observed using the site. Therefore, to undertake sound analyses the tally data were excluded from the analyses.
- 2.25 Without the availability of the tally data it is not possible to calculate estimated number of 'visits' to the site, where the estimated number of visits accounts for the proportion of visitors observed using the site to those interviewed given the data collection inconsistencies with the tally. Therefore, analyses were undertaken to predict visit numbers, from only the interviewed residents which reflect visit numbers from only those groups interviewed on the site. The absolute values of these predictions will be underestimates but still act as a valuable proxy from which to evaluate change.
- 2.26 Visit rates were generated using the group size and visitor origin of local resident interviewed groups. Interview data from groups who arrived by car and by foot were pooled. The origin of each group was attributed to a distance band which contain the postcode or settlement origin stated on the interview along with their group size.
- 2.27 The visit rate was calculated by dividing the sum of the group size (number of people who originated from within each distance band) by the total number of people associated with all residential dwellings within the same distance band (number of residential delivery points*current occupancy rate of 2.4¹). This value was then divided by 5.6 to account for 136 hours of survey effort undertaken across the two locations at Penhale to produce a visit rate per dwelling per day to the site assuming an annual average day length of 12 hours²
- 2.28 A model was manually fitted to a plot of the calculated visit rate against distance band to enable predictions of visits to the site for distance bands where limited or no visitor origin data were supplied and to generate predictions of how new housing across the different distance bands would influence the number visits to Penhale.

Estimates of annual visit totals

- 2.29 Annual visit totals to Penhale were estimated using the visit rate from the fitted model and scaled to generate estimates of visitors to the site per year based on the housing information supplied by Cornwall Council.

¹

<http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/2011censuspopulationandhouseholdestimatesforenglandandwales/2012-07-16>

² <http://www.projectbritain.com/weather/sunshine.htm>

3 Visitor Survey Results

Survey effort

Survey sessions

- Surveys were conducted at two locations at Penhale SAC, where surveyor effort was split between the two locations, surveys were coded as undertaken at the laybys.
- Survey effort across the locations and between seasons was not equal due to resource constraints
- 136 hours of survey work was undertaken at Penhale
- 406 visitor interviews were completed and 507 people with 696 dogs were recording entering the site during the survey sessions
- Interview success rate was 86% with interview refusal from 65 approached groups

- 3.1 Surveys sessions were undertaken throughout the year at two separate survey locations at Penhale. Equal survey effort was not possible through and within the seasons due to resource constraints, but given these limitations, during the periods of survey effort 566 visitors with 733 dogs were recorded entering and using the site which equates to 1.4 dogs per visitor (Table 1). An early indication as to the popularity and value of this site to dog owners.
- 3.2 In total, the surveyors completed interviews with 406 individual groups during their visit to site (Table 1). The largest number of interviews were completed in the Spring survey session. In total 87 groups were interviewed in summer, the lowest number of interviewed visitors across the seasons, which is surprising as higher numbers of visitors are expected on site at this time of year, especially when day length is considered. When placed in context, Table 1 illustrates that while each site was surveyed over the course of a season, there were some inconsistencies with both survey effort and the recording of tally data. Conclusions drawn from the data in this table should be carefully considered and make reference to any limitations specifically variation in survey effort, or records of count data.
- 3.3 From a total of 406 completed questionnaires only 65 refusals were made (Table 1). This represents an 84% interview success rate giving a high level confidence that the data collected are representative of the majority of visitors that regularly and less frequently spend time on the site.
- 3.4 Across all the survey session a total of 39 visitor groups confirmed they had previously been interviewed, a good indication that the survey has captured data from regular and repeat visitors to the site.

Table 1: Summary of visitor survey effort, sessions schedule and tally counts for Penhale site. CP refers to surveys undertaken at the Perran Sands car park (survey location code 2) and LB refers to surveys undertaken at the parking layby's along Road C0174. The codes n/s refer to sessions where the location was not surveyed and blanks were missing data on recoding forms.

		Entering						Leaving						Survey specifics					
		Individuals		Groups		Dogs		Individuals		Groups		Dogs		Questionnaires completed		Refusals		Already Interviewed	
Autumn	Survey Session	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB
WD	08:00 - 14:00	4		4		10		3		4		10		9		0		0	
WE	08:00 - 13:00		7		17		23		1		11		9		19		1		4
WD	08:00 - 13:00		1		1		3		2		2		2		9		2		1
WE	12:00 - 14:00		6		49		23		5		12		16		18		10		0
WD	12:00 - 16:00		16		17		36		13		14		20		8		2		0
WD	12:00 - 18:00	6		11		13		27		18		0		9		0		4	
WD	16:00 - 18:00	1		3		2		2		2		4		2		1		1	
WE	13:00 - 17:10		8		30		27							17		3		2	
Totals	Per survey location	11	38	18	114	25	112	32	21	24	39	14	47	20	71	1	18	5	7
	By site	49		132		37		53		63		61		92		19		12	
Winter		CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB
WD	08:00 - 11:00	17	11	10		53	25	5	10			12	19	10	8	2	2	1	1
WE	08:00 - 11:00	7	30	0		11	59	6	2	0		10	2	6	5	0	2	1	1
WD	11:00 - 14:00	11	2	8	0	19	2	7	6	5	1	16	7	9	5	1	1	1	1
WE	11:00 - 14:00	36	12		16	45	32		22		12		41	7	13	1	1	1	1
WD	14:00 - 17:00	19	n/s	0	n/s	28	n/s	15	n/s		n/s	17	n/s	17	n/s	0	n/s	1	n/s
WE	14:00 - 17:00	10	7	13	7	28	15	4	15	2		8	8	10	14	0	0	1	1
Totals	Per survey location	100	62	31	23	184	133	37	55	7	13	63	77	59	45	4	6	6	4
	By site	162		54		317		92		20		140		104		10		10	
Spring		CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB
WD	08:00 - 12:00	36	n/s	4	n/s	47	n/s	26	n/s	3	n/s	3	n/s	19	n/s	4	n/s	1	n/s
WE	08:00 - 12:00	n/s	33	n/s	0	n/s	28	n/s	23	n/s	0	n/s	24	n/s	23	n/s	0	n/s	1
WD	12:00 - 16:00	24	n/s	0	n/s	25	n/s	20	n/s	0	n/s	26	n/s	16	n/s	2	n/s	1	n/s
WE	12:00 - 16:00	28	15	7		24	11	48	9	7		24	8	14	15	2	1	1	
WD	16:00 - 19:00	16	10	0	2	16	15	12	16	0	0	13	14	8	13	2	0	1	1
WE	16:00 - 19:00	23	n/s	0	n/s	20	n/s	21	n/s	0	n/s	17	n/s	13	n/s	3	n/s	1	n/s
Totals	Per survey location	127	58	11	2	132	54	127	48	10	0	83	46	70	51	13	1	5	2
	By site	185		13		186		159		10		129		121		14		7	
Summer		CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB	CP	LB
WD	08:00 - 12:00	60		5		65								16		2		1	
WE	08:00 - 12:00		44		4		35							11	9		8		1
WD	12:00 - 16:00	20	n/s	7	n/s	19	n/s	6	n/s	4	n/s	14	n/s	10	n/s	3	n/s	2	n/s
WE	12:00 - 16:00	4	n/s	12	n/s	20	n/s	7	n/s	5	n/s	12	n/s	12	n/s	3	n/s	2	n/s
WD	16:00 - 19:00	15	7	0	8	22	16	19	9	5	5	29	15	9	10	2	1	1	1
WE	16:00 - 19:00	10		3		9		4		2		7		5		1		1	
WE	16:00 - 19:00		10		0		7	s	9		1		12		8		2		1
Totals	Per individual location (exc merged)	39	61	19	12	61	58	32	18	9	6	55	27	42	27	8	11	5	3
Totals	By site	170		39		193		54		17		89		90		22		10	
Total	Annual Totals	566		238		733		374		136		419		406		65		39	

General visitor patterns

Overview

- 406 completed interviews reflect the visiting patterns of 706 people
- 93% (378) of the 406 interviewed groups were accompanied by a total of 586 dogs
- 91 (22%) of interviews were conducted in Autumn, 104 (26%) in Winter, 121 (30%) in Spring, and 90 (22%) in Summer
- Average group size during the Autumn, Spring and Summer surveys was 1.8 and 1.5 in Winter

- 3.5 In total 406 visitor groups at Penhale were interviewed which accounts for the visiting patterns of 706 people with 586 dogs. Of these 406 visitor groups, surveyors noted that 378 of these groups were accompanied by at least one dog, a percentage of 93% (Table 2).
- 3.6 A highest number of visitor groups (121) were interviewed during the Spring surveys. Across the survey seasons the average size of interviewed groups remained constant at 1.8 during Autumn, Spring and Summer surveys and was slightly lower in the Winter at 1.5 slightly ranging from 1.5 in Winter to 1.8 during the Spring and Summer sessions (Table 2).
- 3.7 In Winter, 97% of visitor groups were accompanied by at least one dog a higher proportion than observed during the seasons (Table 2).

Table 2: Seasonal summary of annual visitor survey results. Values in () are percentages of the row totals.

Survey overview per season	Autumn	Winter	Spring	Summer	Total
Number of interviewed groups	91 (22)	104 (26)	121 (30)	90 (22)	406 (100)
Total number visitors in interviewed groups*	167 (24)	154 (22)	220 (31)	165 (23)	706 (100)
Number of visitor groups with dogs	85 (22)	101 (27)	108 (29)	84 (22)	378 (100)
Number of visitor groups with dogs as percentage of groups interviewed per season	92	97	89	93	93
Total number of dogs with interviewed groups*	133 (23)	163 (28)	154 (26)	136 (23)	586 (100)
Mean group size per interviewed group	1.8	1.5	1.8	1.8	

Visit purpose

- Across the annual survey period, 87% (353) of interviewed groups were local residents and 13% (53) County visitors
- In Winter, 98% of interviewed groups were local residents, 90% in Autumn and 85% in Spring
- In Summer, 28% of interviewed groups were non-local residents

- 3.8 Visitor groups were asked the purpose of their visit to establish whether they were local residents or resided further away. Data from both survey locations were pooled and as in some survey sessions a single surveyor was monitoring both survey locations, and these data were categorised by season (Table 3).
- 3.9 Across each season the overwhelming majority of visitors to Penhale lived within Cornwall and were either on a day trip or short visit, with the highest proportion (98%) of residents making their visit in Winter. Overall 86% of the interviewed visitor groups lived in Cornwall (Table 3).
- 3.10 As expected a higher number of visitors who lived outside of the county were interviewed in Summer compared to those interviewed over the Winter survey sessions (28% compared to 1%, (Table 3)). Penhale is site used predominately by the local population all year round with a noticeable increase in use from County visitors in the milder months. Over the course of the

survey sessions 87% of interviewed groups lived locally in comparison to 13% who lived outside the county.

Table 3: Response of visitor groups when asked about the purpose of their visit, data originate from both survey locations and are classified by survey season. The values represent the count of responses per category and as (%) of the seasonal totals and [] as a percentage of the response total.

What is the purpose of your visit today?	Autumn	Winter	Spring	Summer	All
Living in Cornwall on a day trip or short visit	102 (98) [25]	82 (90) [20]	103 (85) [25]	65 (72) [16]	352 [87]
Living outside of Cornwall on holiday in the area	1 (1) [0]	9 (10) [2]	18 (15) [4]	25 (28) [6]	53 [13]
Living in Cornwall Visiting as part of an organised activity on the site	1 (1) [0]	(0) [0]	(0) [0]	(0) [0]	1 [0]
Living outside Cornwall visiting as part of an organised activity on the site	(0) [0]	(0) [0]	(0) [0]	(0) [0]	[0]
Total expressed per season	104 (100) [26]	91 (100) [22]	121 (100) [30]	90 (100) [22]	406 [100]

Main visitor activity

- 87% of groups stated their visit activity as ‘dog walking’
- Dog walking was the most frequently cited activity across all survey seasons
- Other activities undertaken at Penhale SAC include walking, wildlife watching, jogging, horse riding, family outing and additional interests stated by groups reflect the rich natural history of the site and included ‘St. Piran’s Cross’, ‘archaeology’, ‘geology’ and ‘historic interest’
- No water focussed activities were undertaken by groups during their interviewed visit

- 3.11 Visitor groups were asked to confirm the main activities they were undertaking during their visit to the site. Respondents could cite multiple activities, for example a group may be walking and wildlife watching. In total 432 activity responses were provided from the 406 interviewed groups (Table 4).
- 3.12 The vast majority (87%) of visitor responses stated their visit activity as dog walking (Table 4). In Winter, 93% (100) of activity responses cited dog walking in comparison to 82% in Autumn, 83% in Summer and 87% in Spring. Across all the seasons, dog walking by far, was the activity most frequently cited by interviewed groups (Table 4).
- 3.13 Other activities undertaken by visitor groups at Penhale during their interview visit included walking, bird or wildlife watching, horse riding, jogging/power walking/Nordic walking and family outing. Bird and wildlife watching was cited as a visit activity by four groups (accounting for 1% of all activity responses, (Table 4) and only during the Spring and Autumn survey sessions. Horse riding was also cited by three interviewees and recorded in both the Winter and Spring survey sessions. Only one group stated their visit activity as a family outing, during the summer survey sessions (Table 4). Other activity responses reflect the natural history of the site with different groups citing their activity as a ‘visit to St. Piran’s Cross’, ‘archaeology’, ‘historic interest’, ‘geology’, ‘blackberry picking’ and other activities included ‘Pokemon’, ‘Sponsored walk’, ‘Motorhome meeting’ and ‘testing dog for science’.
- 3.14 Out of a total of 406 interviewed groups, no visitors stated their main activity during the interviewed visit as a marine based activity. This could potentially be a combination of weather and seas conditions during the survey sessions, or that the survey locations were not best suited to gather data from visitors undertaking these activities (Table 4). The activities undertaken by local and non-resident visitor groups are considered in Table 12 and all activities responses

including those undertaken in the interviewed visit and other visits to site are presented in Table 13. The survey data clearly shows the overwhelming majority of visitor groups visit Penhale to dog walk, across all seasons (Table 4)

Table 4: Response of visitor groups when asked to confirm their main activity during their visit from both survey locations and classified by survey season. The values represent the count of responses per category and as (%) of the seasonal totals and [%] of 432 responses

. Activity	Autumn	Winter	Spring	Summer	All
Dog walking	83 (82) [19]	100 (93) [23]	107 (87) [25]	84 (83) [19]	374 [87]
Walking	10 (10) [2]	4 (4) [1]	9 (7) [2]	9 (9) [2]	32 [7]
Other	6 (6) [1]	1 (1) [0]	2 (2) [0]	5 (5) [1]	14 [3]
Birdwatching/ wildlife watching	1 (1) [0]	0 (0) [0]	3 (2) [1]	0 (0) [0]	4 [1]
Jogging/power walking/Nordic walking	1 (1) [0]	1 (1) [0]	0 (0) [0]	2 (2) [0]	4 [1]
Horse riding	0 (0) [0]	1 (1) [0]	2 (2) [0]	0 (0) [0]	3 [1]
Outing with children/family	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (1) [0]	1 [0]
Cycling	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Motor Yacht	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Kite Flying	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Canoeing/kayaking	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Fishing	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Jet ski	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Kite surfing	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Sailing Yacht	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Small sailing craft (Dingy/ etc)	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Stand up paddle board	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Surfing	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Windsurfing	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Bait digging/cockling/crab tiling	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 (0) [0]	0 [0]
Totals per season	101 (100) [23]	107 (100) [25]	123 (100) [28]	101 (100) [23]	432 [100]

Visit frequency

- A higher proportion of frequent visitors were interviewed during the Autumn and Winter survey sessions
- 30% of all groups make over 180 annual visits
- 30% of all groups make between 60 and 180 annual visits
- 78% of all groups make over 20 annual visits to Penhale

- 3.15 Visitor groups were asked how often they had visited Penhale for recreational purposes over the past year and from 406 interviewed groups 396 responses were gathered
- 3.16 In total 78% of interviewed groups confirmed they visited the site at least several times a month with 60% of groups indicating they make visit at least ‘a few times a week’ (Table 5). This high value is reflective of the regular recreational use of the site and that visitors are very faithful to this particular location with 30% of groups stating they visit most days (Table 5).
- 3.17 A higher proportion of interviewed groups in Autumn (62%) and Winter (69%) stated they made at least 60 annual visits to Penhale in comparison to the groups interviewed during the Spring (54%) and Summer (55%) (Table 5).
- 3.18 Groups who made less than 20 annual visits to Penhale (responded ‘about once a month’ and lesser visit frequencies) accounted for 22% (Table 5) of responses and are further considered in Table 8.

Table 5: Responses stated by visitor groups when asked how often they had visited the site over the past year. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Visit frequency	Autumn	Winter	Spring	Summer	All
Most days (>180 visits)	29 (33) [7]	34 (33) [9]	30 (26) [8]	26 (29) [7]	119 [30]
A few times a week (60-180 visits)	25 (29) [6]	37 (36) [9]	32 (28) [8]	23 (26) [6]	117 [30]
Several times a month (20-60 visits)	14 (16) [4]	19 (18) [5]	25 (22) [6]	12 (13) [3]	70 [18]
About once a month (12-20 visits)	4 (5) [1]	10 (10) [3]	13 (11) [3]	2 (2) [1]	29 [7]
Less than once a month (2-12 visits)	7 (8) [2]	1 (1) [0]	11 (9) [3]	12 (13) [3]	31 [8]
First time	8 (9) [2]	2 (2) [1]	5 (4) [1]	14 (16) [4]	29 [7]
Don't know	0 (0) [0]	1 (1) [0]	0 (0) [0]	0 (0) [0]	1 [0]
Total	87 (100) [22]	104 (100) [26]	116 (100) [29]	89 (100) [22]	396 [100]

Time of day per visit (by season)

- The most frequently stated time to visit across the seasons was between 09:00 and 12:00
- The time visitors tended to make a visit varied by season with daylight hours

- 3.19 Interviewed groups were asked whether they tended to visit the site at certain time of day. Multiple responses were given by respondents and 534 responses were provided from 406 interviews (Table 6).
- 3.20 Across the year the most frequently stated time groups tended to visit Penhale was between 09:00 and 12:00 with 127 responses and 24% of the response total (Table 6). There is some variation in responses between groups that were interviewed across the different seasons, which tie in well with shorter daylight hours in the Winter and longer day length in the Summer.
- 3.21 In Winter, the most frequently stated visit time with 28% of responses was between 09:00 - 12:00 and the least visited time with 10% was after 17:00. Groups interviewed in the Spring and Autumn provided very consistent response frequencies across the time categories while in Summer the most frequently cited visit time with 31% of responses was after 17:00, reflective of the long day length (Table 6).

Table 6: Responses stated by visitor groups when asked whether there is a tendency to visit the site at a certain time of day, multiple responses per group could be given. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Time of day	Autumn	Winter	Spring	Summer	All
Before 9am	23 (14) [4]	21 (16) [4]	34 (22) [6]	20 (24) [4]	98 [18]
Between 9am and 12	40 (25) [7]	36 (28) [7]	34 (22) [6]	17 (20) [3]	127 [24]
Between 12 and 3pm	27 (17) [5]	32 (25) [6]	32 (20) [6]	13 (16) [2]	104 [19]
Between 3pm and 5pm	34 (21) [6]	28 (22) [5]	28 (18) [5]	7 (8) [1]	97 [18]
After 5pm	24 (15) [4]	13 (10) [2]	30 (19) [6]	26 (31) [5]	93 [17]
Varies	15 (9) [3]	0 (0) [0]	0 (0) [0]	0 (0) [0]	15 [3]
Total	163 (100) [31]	130 (100) [24]	158 (100) [30]	83 (100) [16]	534 [100]

Visitor patterns of local and non-local residents

Visit purpose

Overview of local and non-local residents

- 353 (87%) of interviewed groups were local residents and 53 groups (13%) were non-local resident groups
- 84% of all visitors recorded during the interviews were associated with interviewed local resident groups
- Average groups size of local resident groups was 1.7 in comparison to 2.1 for non-local resident groups
- 95% of local resident groups were accompanied by at least one dog
- 530 (90%) of dogs were recorded with local resident groups in comparison to 56 (10%) with non-local resident groups

- 3.22** To fully understand recreational use of a site, it is important to consider the origin and nature of visitor groups as well as any patterns in visit seasonality. The draw of a site can vary widely by season due to many different factors such as availability of parking, summer dog restrictions, day light hours and weather. As Cornwall is known to attract a high number of non-resident tourists, the visit patterns of local and non-local residents are explored to quantify any differences in their visit behaviour.
- 3.23** In total 87% of the interviewed visitor groups lived within Cornwall and as such are termed 'local resident visitors' (Table 7). Non-local visitors, those who live outside of Cornwall accounted for the responses of 13% of the interviewed groups. There were some seasonal fluctuations in the proportion of local to non-resident visitors, but predominately the site is visited and used by local residents (Table 2).
- 3.24** A very high proportion of both local resident (95%) and non-local visitor groups (79%) were accompanied by dogs, with 90% (530 dogs) of the 586 dogs recorded on the visitor survey associated with visiting local resident groups (Table 7).

Table 7: Annual summary of visitor survey results categorised by local and non-local residents. Values in [] are percentages of the row totals and values in () are percentage of total number of interviewed local resident and non-local visitor groups.

Overview of survey results per local resident and non-local visitor	Local resident	Non-local visitor	Totals
Number of interviewed groups	353 [87]	53 [13]	406 [100]
Total number visitors in interviewed groups*	594 [84]	110 [16]	704 [100]
Number of groups with dogs	336 (95) [89]	42 (79) [11]	378 [100]
Total number of dogs with interviewed groups*	530 [90]	56 [10]	586 [100]
Mean group size per interviewed group	1.7	2.1	

Visit frequency

- 34% of local resident groups make over 180 annual visits
- 33% of local resident groups make between 60 and 180 annual visits
- 86% of local resident groups make over 20 annual visits to Penhale
- The majority of non-local resident groups 15 (32%) make between 2 and 12 annual visits

- 3.25** In total 396 visit frequency interview responses were given from the 406 interviews (Table 8). The results clearly show a high level of regular use, with frequent repeat visits from local residents. In total 59% of all visit frequency responses were by local residents who made visits to the site 'most days' or 'a few times a week', which quantifies the popularity of this site with permanent residents in Cornwall. Not only are the local residents those who were most

frequently encountered on survey session (Table 7), but they also made the most frequent number visits to the site.

3.26 Of all the visit frequency responses only 4% relate to responses given by local residents who made a visit to the site ‘less than once a month’. As expected, the proportion of non-local residents making regular visits to Penhale was much lower in comparison to that recorded from local residents (Table 8).

Table 8: Responses stated by visitor groups when asked how often they have visited the site for recreation over the past year. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Visit frequency over the recent year	Local Resident	Visitor to the County	Total
Most days (>180 visits)	117 (34) [30]	2 (4) [1]	119 [30]
A few times a week (60-180 visits)	116 (33) [29]	1 (2) [0]	117 [30]
Several times a month (20-60 visits)	65 (19) [16]	5 (11) [1]	70 [18]
Less than once a month (2-12 visits)	16 (5) [4]	15 (32) [4]	31 [8]
About once a month (12-20 visits)	27 (8) [7]	2 (4) [1]	29 [7]
First time	8 (2) [2]	21 (45) [5]	29 [7]
Don't know	0 (0) [0]	1 (2) [0]	1 [0]
Total	349 (100) [88]	47 (100) [12]	396 [100]

Seasonality of visits

- 58% of groups indicated they visit all year round
- Of local resident groups 64% indicated they visit all year round
- 30% of non-local resident groups tend to visit more over the Summer

3.27 Visitor groups were asked about the seasonality of their visit in relation to the activity they were undertaking during their interviewed visit. The question allowed visitors to provide multiple answers and from the 406 completed interviews, 485 question responses were provided (Table 9).

3.28 The majority of responses (58%) stated the visitor groups made their visits all year round and of this 58%, 56% of the responses were from interviewed local residents. When considered independently 64% of responses from local resident groups indicated they visit all year round (Table 9).

3.29 Very few non-local residents tended to visit the site more during Winter (Table 9). The responses of this group indicated a preference for Summer visits (30%) and 27% of the responses indicated it was their first visit to the site (Table 9).

Table 9: Responses stated by visitor groups when asked whether they tended to visit the site more at a particular time of year, for the activity they were undertaking during their interview. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Visit at a particular time of year for given main activity	Local Resident	Visitor to the County	Total
Same all year	273 (64) [56]	9 (15) [2]	282 [58]
Summer	33 (8) [7]	18 (30) [4]	51 [11]
Spring	39 (9) [8]	7 (12) [1]	46 [9]
Autumn	32 (7) [7]	6 (10) [1]	38 [8]
Winter	37 (9) [8]	1 (2) [0]	38 [8]
First visit	10 (2) [2]	16 (27) [3]	26 [5]
Don't know	3 (1) [1]	1 (2) [0]	4 [1]
Total	428 (100) [88]	60 (100) [12]	485 [100]

Visit duration

- 53% of visits by local residents groups were less than an hour
- 94% of groups stated their visit duration was less than two hours
- 19% of non-local resident groups stated their visit was/would be longer than two hours
- 4% of local resident groups stated their visit was/would be longer than two hours
- Coarse estimates based on average walking speed indicate a visitor group would cover 2.4km on site within 30 minutes

3.30 Visitor groups were asked about the duration or expected duration their visit. The majority (94%) of visits less than two hours. Only 4% of local residents spent more than two hours on site, in comparison 19% of non-local residents (Table 10).

3.31 For context, the mid-point of each duration category was selected with the exception of visits over 3 hours where an approximation of 4.5 hours was selected and multiplied by the average walking speed³ to create an indication of the distance covered during a visit of different durations (Table 11).

Table 10: Responses given by interviewed visitor groups as to the (expected)/duration of their interviewed visit. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Duration	Local Resident	Visitor to the County	Total
Less than 1 hour	186 (53) [46]	23 (43) [6]	209 [51]
1-2 hours	153 (43) [38]	20 (38) [5]	173 [43]
2-3 hours	9 (3) [2]	6 (11) [1]	15 [4]
More than 3 hours	5 (1) [1]	4 (8) [1]	9 [2]
Total	353 (100) [87]	53 (100) [13]	406 [100]

Table 11: Distance estimates from the duration categories generated from using an average walking speed of 4.8km per hour⁴

Duration cited by respondent	Assumed duration of visit (hours)	Distance (km) covered with average walking speed of 4.8km/per hour
Less than 1 hour	0.5	2.4
1-2 hours	1.5	7.2
2-3 hours	2.5	12
More than 3 hours	4.5	21.6

Visitor activities

- A higher proportion of local residents were dog walking in comparison to non-local residents (90% vs 67%)
- 87% of all activity responses cited dog walking
- Other activities undertaken but not during the interviewed visit include wildlife watching, windsurfing, horse-riding, jogging and family outings

3.32 The seasonality of visitor activities was quantified in (Table 4) with dog walking the prevalent year round activity. Here, the activities undertaken during the interviewed visit were split between local and non-local residents, independent of season. Multiple activity responses were allowed and in total 432 activity responses were given from the 406 completed interviews (Table 12).

³ <https://www.bhf.org.uk/get-involved/events/training-zone/walking-training-zone/walking-faqs>

⁴ <https://www.bhf.org.uk/get-involved/events/training-zone/walking-training-zone/walking-faqs>

3.33 A higher proportion of local residents (90%) were dog walking during their interviewed visit in comparison to no-local residents (67%) (Table 12). Overall 87% of all activity responses cited dog walking as their visit activity (Table 12).

Table 12: Activity responses given for activities undertaken during the interviewed visit by all visitor groups. Only activities stated by respondents are reported. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Main activity	Local residents	Non-local residents	Total
Dog walking	333 (90) [77]	41 (67) [9]	374 [87]
Walking	16 (4) [4]	16 (26) [4]	32 [7]
Other	10 (3) [2]	4 (7) [1]	14 [3]
Birdwatching/ wildlife watching	4 (1) [1]	0 (0) [0]	4 [1]
Jogging/power walking/Nordic walking	4 (1) [1]	0 (0) [0]	4 [1]
Horse riding	3 (1) [1]	0 (0) [0]	3 [1]
Outing with children/family	1 (0) [0]	0 (0) [0]	1 [0]
Total	371 (100) [86]	61 (100) [14]	432 [100]

3.34 In addition to the activities each visitor group was undertaking during their interviewed visit, groups were asked whether they visit Penhale to undertake any other activities, multiple activity responses were allowed. Table 13 presents the results from 109 other activity responses and 91% of these responses were from local resident groups.

3.35 Local residents also visit Penhale to undertake a variety of other recreational activities including some marine focused sports such as surfing, fishing and windsurfing (Table 13). Other cited activities listed in (Table 13) included visiting the church, drinking, contemplation, biological recording, football with children and duplicated activities on the questionnaire.

Table 13: Activity responses provided by interviews groups about other activities they undertake on other visits to Penhale. Only activities stated by respondents are reported. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Other activities undertaken at Penhale	Local Resident	Visitor to the County	Total
Other	34 (34) [31]	6 (60) [6]	40 [37]
Walking	18 (18) [17]	2 (20) [2]	20 [18]
Dog walking	12 (12) [11]	1 (10) [1]	13 [12]
Jogging/power walking/Nordic walking	10 (10) [9]	0 (0) [0]	10 [9]
Cycling	5 (5) [5]	0 (0) [0]	5 [5]
Horse riding	5 (5) [5]	0 (0) [0]	5 [5]
Surfing	4 (4) [4]	0 (0) [0]	4 [4]
Outing with children/family	4 (4) [4]	0 (0) [0]	4 [4]
Birdwatching/ wildlife watching	3 (3) [3]	0 (0) [0]	3 [3]
Kite Flying	2 (2) [2]	1 (10) [1]	3 [3]
Windsurfing	1 (1) [1]	0 (0) [0]	1 [1]
Fishing	1 (1) [1]	0 (0) [0]	1 [1]
Total	99 (100) [91]	10 (100) [9]	109 [100]

Why visitors specifically chose to visit Penhale

- 28% (234) of all responses indicate visitors are specifically drawn to Penhale because of ‘the ability to let the dog off the lead’

- 17% of local resident responses indicated they are specifically drawn to Penhale as it is ‘close to home’
- 118 additional comments were provided by local residents groups and the majority 21% specifically made their visit to Penhale as the site was dry
- Across the seasons Penhale was specifically visited by some local residents in preference to other destinations, as it was a large, dry and dog friendly

- 3.36 Visitor groups were asked to describe what specifically makes them visit Penhale, rather than another local site. Multiple responses were allowed and from 406 interviews 848 responses were given (Table 14). The majority of these responses 91% were given by local resident groups.
- 3.37 The most frequently (28%) stated comment about why visitor groups made their trip to Penhale was ‘the ability to let the dog off the lead’. In total 28% of local residents in comparison to 23% of non-local residents gave this response and 16% of all responses
- 3.38 During the question about why visitor groups specifically made their trip to Penhale, surveyors noted any respondent led additional comments. Table 15 summarises the comments provided by local resident groups by season.

Table 14: Responses provided by interviews groups when asked ‘what makes you come here, specifically, rather than another local site?’. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

What makes you come here specifically, rather than another local site?	Local Resident	Visitor to the County	Total
Ability to let dog off lead	216 (28) [25]	18 (23) [2]	234 [27]
Other	130 (17) [15]	27 (35) [3]	157 [18]
Close to home	134 (17) [16]	8 (10) [1]	142 [17]
Attractive scenery/views	106 (14) [12]	12 (15) [1]	118 [14]
Good/easy parking	78 (10) [9]	3 (4) [0]	81 [9]
Feel safe here	52 (7) [6]	3 (4) [0]	55 [6]
Right place for activity (e.g. Kite surfing/fishing/good for kids)	20 (3) [2]	3 (4) [0]	23 [3]
Particular wildlife interest	17 (2) [2]	1 (1) [0]	18 [2]
Suitability given weather conditions	15 (2) [2]	1 (1) [0]	16 [2]
Don't know	5 (1) [1]	1 (1) [0]	6 [1]
Others in party chose	3 (0) [0]	0 (0) [0]	3 [0]
Refreshments	2 (0) [0]	1 (1) [0]	3 [0]
Particular launching facilities	1 (0) [0]	0 (0) [0]	1 [0]
Total	779 (100) [91]	78 (100) [9]	857 [100]

- 3.39 In total visitor groups indicated 157 ‘other’ specific factors for their Penhale visit and of these 130 were from local resident visitor groups (Table 14) of which 118 provided additional responses (those which could not be categorised in the response options) and are summarised by season (Table 15).
- 3.40 The majority (21%) of these 118 additional comments highlights local residents value the dry conditions of the sites with 42% of respondent led comments referencing the dry conditions in the Winter surveys (overall accounting for 14% of all responses), 8% in Autumn, 20% in Spring and 9% in Summer (Table 15).
- 3.41 Of the other most frequently cited comments 11% relate to the size and open nature of the site and the dog friendliness of the area (11%), which are supported by other more detailed comments such as the site is ‘sociable with other dog walkers’, ‘safe for the dog to roam’, ‘dogs are allowed in the Summer’ and ‘meet other dogs’ (Table 15). Across the seasons Penhale was specifically visited by some local residents in preference to other destinations, as it was a large, dry and dog friendly open space.

Table 15: Additional comments given by interviewed local resident groups when asked why specifically they made their visit to Penhale.

Specific comments about why Penhale was visited by interviewed local resident visitor groups	Autumn	Winter	Spring	Summer	All
Dry	3 (8) [3]	16 (42) [14]	4 (20) [3]	2 (9) [2]	25 [21]
Large open space	1 (3) [1]	4 (11) [3]	1 (5) [1]	7 (30) [6]	13 [11]
Dog friendly	0 (0) [0]	3 (8) [3]	2 (10) [2]	1 (4) [1]	6 [5]
Quiet	1 (3) [1]	0 (0) [0]	1 (5) [1]	1 (4) [1]	3 [3]
Beach	0 (0) [0]	0 (0) [0]	1 (5) [1]	1 (4) [1]	2 [2]
Less people and dogs	0 (0) [0]	0 (0) [0]	0 (0) [0]	2 (9) [2]	2 [2]
Nice place to walk	0 (0) [0]	1 (3) [1]	0 (0) [0]	1 (4) [1]	2 [2]
No traffic	1 (3) [1]	0 (0) [0]	1 (5) [1]	0 (0) [0]	2 [2]
Passing through	0 (0) [0]	0 (0) [0]	2 (10) [2]	0 (0) [0]	2 [2]
Sociable	0 (0) [0]	2 (5) [2]	0 (0) [0]	0 (0) [0]	2 [2]
Socialising dogs	0 (0) [0]	2 (5) [2]	0 (0) [0]	0 (0) [0]	2 [2]
Spacious	2 (5) [2]	0 (0) [0]	0 (0) [0]	0 (0) [0]	2 [2]
Beautiful area	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Change from beach	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Clean, open, safe	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
connections to site	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Dogs are allowed in summer	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
Dry and large open space	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Enclosed	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
Environment	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Flat and good visibility for dog which likes to run	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Good for socialising	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Handy	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Ideal for lots of dogs, open space, grassy	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
Ideal spot	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
It's easy	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
It's very sociable and friendly	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
Less dogs than other sites	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Less people	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
No livestock	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Peace and Quite	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
rabbits to chase, safe and good area for training	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Recommendation	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Safe to let dog roam	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Sentimental	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 (4) [1]	1 [1]
"Sociable with other dog walkers					
No livestock"	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Wild flowers	0 (0) [0]	0 (0) [0]	1 (5) [1]	0 (0) [0]	1 [1]
Archaeology	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Checking out the site	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Childhood playground	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Convenient today	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Dog ban on local beaches in the summer, its dry, son can kick a football	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Doggy' people (who like dogs)	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Dry	0 (0) [0]	1 (3) [1]	0 (0) [0]	0 (0) [0]	1 [1]
Fabulous place for dogs	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Family like it here	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Flat terrain	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Got everything	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Historical features	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
It's a nice run	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Just happen to be looking after someone else's dog today	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Change	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Meet other dogs	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
My friend really likes it here	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Near local hospice- visiting husband. Freedom for children	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]

Specific comments about why Penhale was visited by interviewed local resident visitor groups	Autumn	Winter	Spring	Summer	All
Good for dogs	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
No big roads near or through site	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
On route to Fraddon	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Open Free Space	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Peace and quiet and free food!	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Provision of dog waste bins	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Recommended by a friend	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
safe and interesting	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Safe for dogs/lots of space/ its dry terrain and dogs stay clean	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
sand/grass/hills	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Tranquillity	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
View excavations of lost church, local archaeology, meet other dog walkers	1 (3) [1]	0 (0) [0]	0 (0) [0]	0 (0) [0]	1 [1]
Total	37 (100) [31]	38 (100) [32]	20 (100) [17]	23 (100) [19]	118 [100]

Response to speculative change on site

- 59% of local resident groups responses suggested there would be no change in the time spent at Penhale in light of speculative change
- Possible changes that would see local residents spending more time on site include 'provision of dog waste bins', 'beach manager/warden' and 'improvements to path surfacing/routing'
- Possible changes that would see local residents spending less time on site include 'dogs required to be on the leads', 'car parking charges' and 'site became busier'

3.42 Visitor groups were asked whether in light of speculative on site change, would they spend more or less time at Penhale. The 2163 responses local-resident visitor groups are presented in Table 16.

3.43 The majority (59%) of local resident responses regarding possible change on site indicated there would be no change in the amount of time spent at Penhale. Possible changes that would see more time spent on site by interviewed local resident groups include the provision of more dog waste bins, the presence of a warden/beach manager and better path surfacing routing (Table 16).

3.44 On site changes that would result in local resident groups spending less time at Penhale include a requirement for dogs to be on the lead, introduction or an increase in car parking charges, if the site became busier with more people and improvements to path surfacing and routing (Table 16).

Table 16: Response of local resident groups when asked how speculative on site changes would influence the amount of time they spend at Penhale. Values represent response count, those in () %'s of row totals and those in [] % of overall response total of 2163.

Response to speculative change	More	Less	Same	Don't know	Total
Dogs required to be on leads	3 (1) [0]	246 (79) [11]	57 (18) [3]	6 (2) [0]	312 [14]
Parking charges or increased charges	2 (1) [0]	238 (76) [11]	68 (22) [3]	4 (1) [0]	312 [14]
Site is busier with more people	1 (0) [0]	116 (37) [5]	193 (61) [9]	5 (2) [0]	315 [15]
Better path surfacing/routing	13 (4) [1]	38 (12) [2]	252 (81) [12]	8 (3) [0]	311 [14]
Provision of dog waste bins	101 (32) [5]	3 (1) [0]	203 (65) [9]	6 (2) [0]	313 [14]
Presence of warden/beach manager	22 (7) [1]	9 (3) [0]	265 (84) [12]	18 (6) [1]	314 [15]
Part of shore closed in areas sensitive for wildlife	6 (2) [0]	11 (4) [1]	246 (86) [11]	23 (8) [1]	286 [13]
Totals	148 (7) [7]	661 (31) [31]	1284 (59) [59]	70 (3) [3]	2163 [100]

Additional comments about Penhale

- Widespread issue with dog poo at the site
- Local resident groups stated they would like to see more dog bins and the bins emptied more frequently
- Strong affinity with the site with local resident groups
- Some local resident groups commented they don't visit the site in Summer because of adders

3.45 Interviewees were asked whether they had any additional comments about the site, all comments provided by local resident groups are detailed in Appendix, Table 32 and Table 17 lists comments with more than one response. In total, 14 comments stated more dog bins were needed on site and 8 comments referred specifically to an issue with dog poo on site, something replicated in more lengthy responses Table 32 and two responses mentioned the dog poo bins need more frequent emptying. An additional 16 comments made reference to their affinity with the site by stating 'great place', 'don't change it' and brilliant site (Table 17).

3.46 Interestingly, two interviewed groups specifically mentioned they did not visit the site during the summer because of adders and there were also concerning comments about the use of the site by professional dog walkers (Table 32).

Table 17: General respondent led comments provided by local resident groups when asked for any comments on the site, only those comments with more than one response are summarised here, Table 32 in Appendix details all comments received.

Comment	Response Count
More dog bins	14
Issue with dog poo	8
Great place	7
Don't change it	5
Adders put us off in summer	2
Bins need emptying regularly	2
Brilliant site	2
Lovely site	2

Features would attract local residents to alternative sites

- Alternative visit destinations which were 'more dog friendly', 'closer to home' and have a 'cheap or free parking provision' are features which would attract a proportion of local resident groups
- Local residents have a strong connection to Penhale and 28% of responses stated 'nothing/no features' would attract them to an alternative site
- Local resident responses suggested that 18% of groups would be attracted to a site that was 'more dog friendly'

3.47 Visitor groups were asked what features would be necessary to attract them to alternative sites instead of Penhale and the responses of local resident groups are summarised in Table 18. In total, 523 responses were provided from the 353 interviewed local resident groups.

3.48 It is clear that local residents have a strong bond with their visit time at Penhale and 23% of responses stated that 'nothing/no features' provided at an alternative location would draw them to a different visit destination (Table 18).

3.49 Alternative visit destinations which were more dog friendly than Penhale, closer to home and had cheap or free parking were features that would attract some of the interviewed local resident groups.

Table 18: Response of local resident interviewed groups when asked that features would be necessary to make another attractive to use as an alternative to Penhale

Features to make another site attractive	Response counts [as % of response total]
No features/nothing	122 [23]
More dog friendly	102 [20]
Other	83 [16]
Cheaper/free parking	54 [10]
Closer to home	48 [9]
Attractive scenery	32 [6]
Better/easier parking facilities	25 [5]
Refreshments (e.g. Café)	22 [4]
Toilets	19 [4]
Better path surfacing/routing	10 [2]
Better information/maps/boards	3 [1]
Better launching/access to water	2 [0]
Measures to control others	1 [0]
Total	523 [100]

Other visit destinations of local resident groups

- The most frequently cited other visit destinations cited by local resident groups were Perranporth Beach, Beaches, Tehidy, Idless Woods, St. Agnes, Crantock and Trelissick

- 3.50 Visitor groups were asked whether they visited any other places for similar purposes during their interviewed visit to Penhale. From the 353 interviewed groups which stated they lived in Cornwall, 627 other visit destinations were provided and those with three or more responses are presented in Table 19, a full list is detailed in the Appendix, Table 31.
- 3.51 Perranporth Beach was the most frequently cited other visit destination by local resident visitor groups, with 56 (9%) of all responses (Table 19). Beaches were also a popular response stated by 48 (8%) of visitor groups as was Tehidy with 36 (6%) and Idless Woods with 34 groups (5%) of visitor groups stating this as an alternative destination (Table 19). The word cloud in Figure 1 illustrates all visit destinations cited by local resident groups where the font size is proportional to the number of responses per destination and Appendix Table 31 details all destinations cited by local resident groups.

Table 19: Summary of other visit destinations provided by 353 interviewed local resident groups. The values represent the response count per visit destination and values in [] are the counts expressed as a % of the 627 responses totals. All visit destinations are listed in the appendix, Table 31.

Destination	Response total [as% of all responses]	Destination	Response total [as% of all responses]
Perranporth Beach	56 [9]	Hayle	7 [1]
Beaches	48 [8]	Laddock Woods	7 [1]
Tehidy	36 [6]	Holywell	7 [1]
Idless Woods	34 [5]	Godrevy	6 [1]
St Agnes	23 [4]	Goonhavern	6 [1]
Crantock	21 [3]	Porthtowan	6 [1]
Trelissick	21 [3]	Cardinham	5 [1]
Perranporth	19 [3]	Loee Bar	5 [1]
Coast Path	18 [3]	Trelissick	5 [1]
Idless	18 [3]	Cliffs St Agnes	4 [1]
Cubert Common	14 [2]	Cligga	4 [1]
Holywell Bay	12 [2]	Lanhydrock	4 [1]
Crantock Beach	10 [2]	Newlyn East Downs	4 [1]
Gwithian	10 [2]	Newquay	4 [1]

Gannel Estuary	9 [1]	Pentire	4 [1]
National Trust Sites	9 [1]	Wheal Busy	4 [1]
Cornwall	8 [1]	Woods	4 [1]
Total responses	627		

Transport

- 90% of all groups arrived by car
- 95% of local resident groups arrived by car and 4% by foot
- 55% of non-local residents arrived by car and 45% by foot

- 3.52 Visitor groups were asked which transport mode they used to arrive at the site, only a single response was allowed and from 306 interviews, 404 responses were given (Table 20).
- 3.53 In total 90% of all interviewed visitor groups arrived by car or motorcycle (Table 20) with a higher proportion of local residents (95%) using a car as their favoured transport mode in comparison to 55% non-local residents (Table 20).
- 3.54 No interviewed groups arrived using a bicycle, train bus or by water and 9% of all groups arrived by foot. Just under half (45%) of non-resident visitors arrived at Penhale by foot in comparison to 4% of local residents (Table 20).

Table 20: Mode of transport used to arrive at Penhale. The values represent the count of responses and are summarised as percentages per season within () and as a percentage of all responses within [].

Transport to site	Local Resident	Visitor to the County	Total
Car/motorcycle	335 (95) [83]	28 (55) [7]	363 [90]
On foot	15 (4) [4]	23 (45) [6]	38 (9) [9]
Horse	3 (1) [1]	(0) [0]	3 (1) [1]
Bus	0 (0) [0]	0 (0) [0]	0 (0) [0]
Train	0 (0) [0]	0 (0) [0]	0 (0) [0]
By water (e.g. boat, canoe etc)	0 (0) [0]	0 (0) [0]	0 (0) [0]
Bicycle	0 (0) [0]	0 (0) [0]	0 (0) [0]
Total	353 (100) [87]	51 (100) [13]	404 (100) [100]

Frequent visitors to the site

- Local resident groups who were dog walking were the most frequent visitors to the site
- 34% of local dog walkers make over 180 annual visits
- 80% of local dog walkers make a minimum of 20 annual visits
- 97% of local dog walkers make a minimum of 12 annual visits
- 96% of local dog walkers arrive by car

- 3.55 Of the main activity responses cited by interviewed local resident groups, 90% of these were dog walking (Table 12) which accounts for 77% of activity responses (in the interviewed visit) by local and non-local residents. Table 8 clearly illustrates that the local residents are those who most frequently and regularly visit the site, with 75% of these interviewed visitor groups making their visit at least once a month (pooled data from top three visit categories).
- 3.56 The evidence from this survey work has shown that local residents who dog walk were the most frequently encountered visitor groups and who overall, make the highest number of annual visits to Penhale. Further consideration is given to these specific visitors to consider how frequently dog walking visitor groups visit Penhale (Table 21).
- 3.57 There were 336 local resident groups who were accompanied by dogs and of these 34% made a visit to Penhale 'most days' and an additional 34% made visits a few times a week with a further 19% visiting several times a month (Table 21).

3.58 Of the 336 local resident dog walking groups 321 (96%) arrived by car and the remaining 4% by foot and were accompanied by a total of 561 dogs (Table 21).

Table 21: Interview responses from groups who stated they lived within Cornwall and were specifically 'dog walking' during their interviewed visit. Values in () % of 336 local resident groups accompanied by at least one dog.

Dog walkers only for Penhale	Response total (as % response total)
Most days (>180 visits)	115 (34)
A few times a week (60-180 visits)	114 (34)
Several times a month (20-60 visits)	63 (19)
About once a month (12-20 visits)	23 (7)
Visitor total (group size) associated with interviewed groups	561
Number of groups who arrived by car	321 (96)
Number of groups who arrived by foot	14 (4)
Total number of interviewed local residents groups dog walking	336

Visitor origin

Visitor origin by Parish

- The visitor origin of 344 local resident visitor groups was captured
- 32% of local resident visitors resided in the Civil Parish of Perranzabuloe, 12% in Truro, 8% in Newquay and 6% in Kenwyn
- 14 postcodes of holiday accommodation from non-local resident visitor groups were captured and were all located in the Civil Parish of Perranzabuloe

3.59 This research is concerned with the visitor origin of those local to and staying within Cornwall. The focus is on understanding the home postcodes / location of local residents and the location of accommodation used by visiting non-local resident groups. The postcode data were filtered to extract visitor origin information which was within or within close proximity to Cornwall and geocoded. Overall, visitor origin information from 334 of the 353 (interview total of 407 less the 54 groups who provided their out of county home postcodes) was successfully digitised, resulting in a 95% capture rate of the origin of local residents.

3.60 Table 22 and Map 1 detail the origin of local resident visitors by Parish and Table 30 in Appendix 1 provides a further breakdown by Ward. Just under a third (32%) of interviewed local resident groups resided in the Parish of Perranzabuloe (Table 22) which includes the settlements of Perranporth, Newlyn and Goonhaven. Other clusters of visitor groups resided in St. Agnes (12%), Truro (10%), Newquay (8%), Kenwyn (6%), St. Newlyn East (4%), Redruth (3%), Cubert (2%), Feock (2%) and St. Allen (2%).

Table 22: The origin of local resident groups who were interviewed at Penhale categorised by Civil Parish polling districts. A breakdown of postcodes by Ward is provided in Table 30. Values represent visitor origins per CP and values in [] detail percentage of all visitor postcodes within each CP from the total of 344.

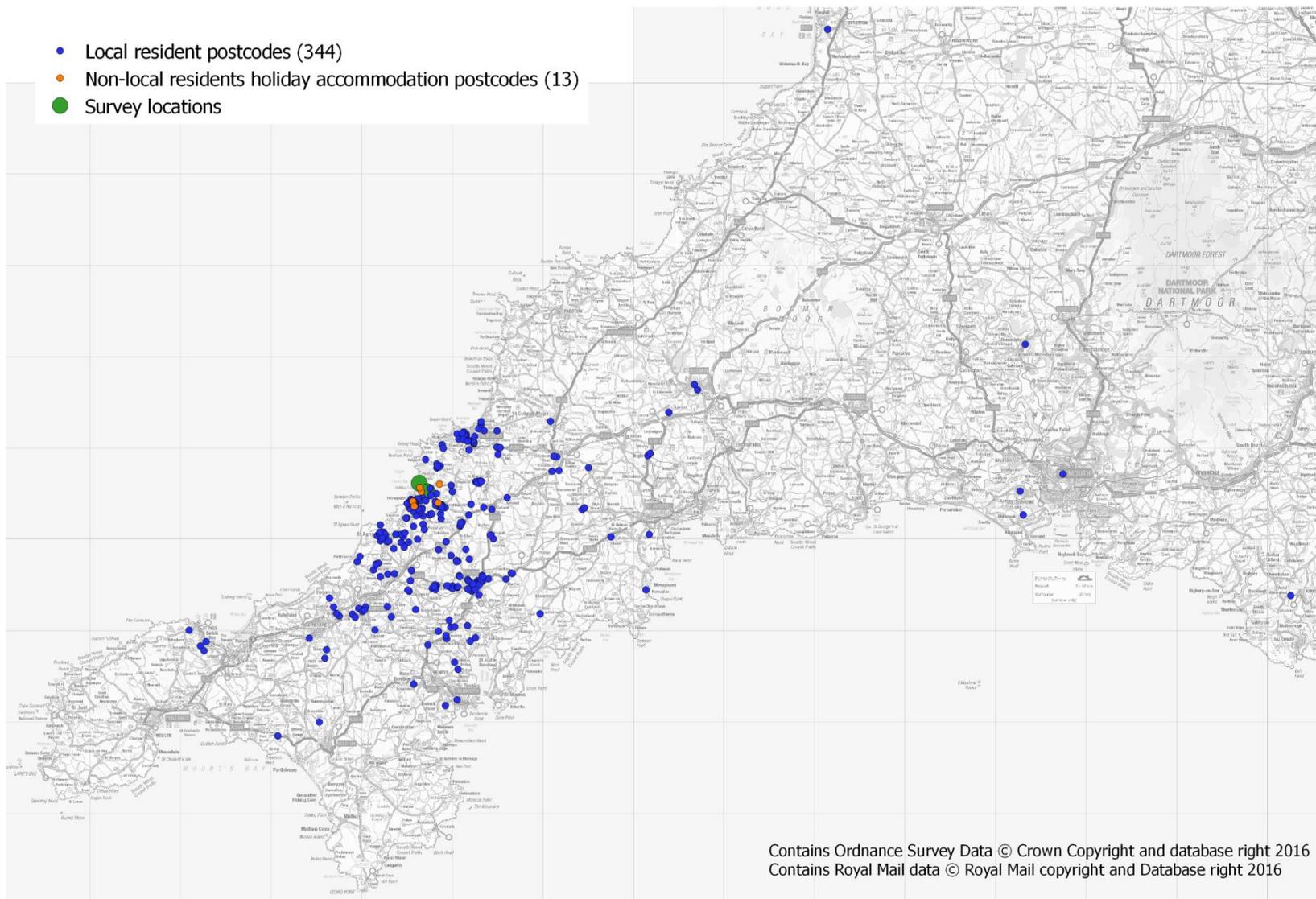
Parish	Number of interviewed visitor groups who reside in Parish	Parish	Number of interviewed visitor groups who reside in Parish
Perranzabuloe	110 (32)	Lanivet	2 (1)
St. Agnes	41 (12)	Mylor	2 (1)
Truro	33 (10)	Perranarworthal	2 (1)
Newquay	26 (8)	St. Day	2 (1)
Kenwyn	21 (6)	Treverbyn	2 (1)

St. Newlyn East	14 (4)	Breage	1 (0.29)
Redruth	9 (3)	Bude-Stratton	1 (0.29)
Cubert	7 (2)	Calstock	1 (0.29)
Feock	7 (2)	Carharrack	1 (0.29)
St. Allen	6 (2)	Kea	1 (0.29)
St. Erme	5 (1)	Lanner	1 (0.29)
Chacewater	4 (1)	Mabe	1 (0.29)
Colan	4 (1)	Mevagissey	1 (0.29)
St. Enoder	4 (1)	Millbrook	1 (0.29)
St. Ives	4 (1)	Pentewan Valley	1 (0.29)
Bodmin	3 (1)	Ruanlanihorne	1 (0.29)
Camborne	3 (1)	Sithney	1 (0.29)
Crantock	3 (1)	St. Columb Major	1 (0.29)
St. Clement	3 (1)	St. Dennis	1 (0.29)
St. Stephen-in-Brannel	3 (1)	St. Mewan	1 (0.29)
Carn Brea	2 (1)	Torpoint	1 (0.29)
Falmouth	2 (1)	West Alvington	1 (0.29)
Illogan	2 (1)	Peverell (City of Plymouth)	1 (0.29)
Total	316 (92)		28 (8)
Overall Total		344 (100)	

- 3.61 Map 1 illustrates the immediate catchment of visitors to Penhale with the highest concentration of postcodes falling within the polling districts adjacent to the site. However, these maps also show there is not a clear, distance linked uniform pattern of visitor origin by increasing distance from the site. In that, it is perhaps not physical distance to the site which best reflects the catchment or Zone of Influence of the site, but the ease at which the site can be reached via the road network, as 95% of local residents stated they arrived at Penhale by car (Table 20). Thus, the origin of groups who arrive by car should be examined in closer detail.
- 3.62 The evidence presented in Map 2 show a large proportion of visitors originate from polling districts that immediately surround Penhale. The distribution of visitors from further afield is not uniform and all appear to be within a short distance to the major A roads in the region, the A30, A390, A394 and A39.
- 3.63 All of the 13 postcodes provided by non-local visitor groups fell within the Parish of Perranzabuloe, with six of these groups stating the postcode TR6 0AD, the centroid of which is located at Perran Sands Holiday Park (Map 1). All of the visitor groups who cited this postcode were interviewed at the Perran Sands Car Park.

Map 1: Location of the home postcode or holiday accommodation of interviewed groups

- Local resident postcodes (344)
- Non-local residents holiday accommodation postcodes (13)
- Survey locations



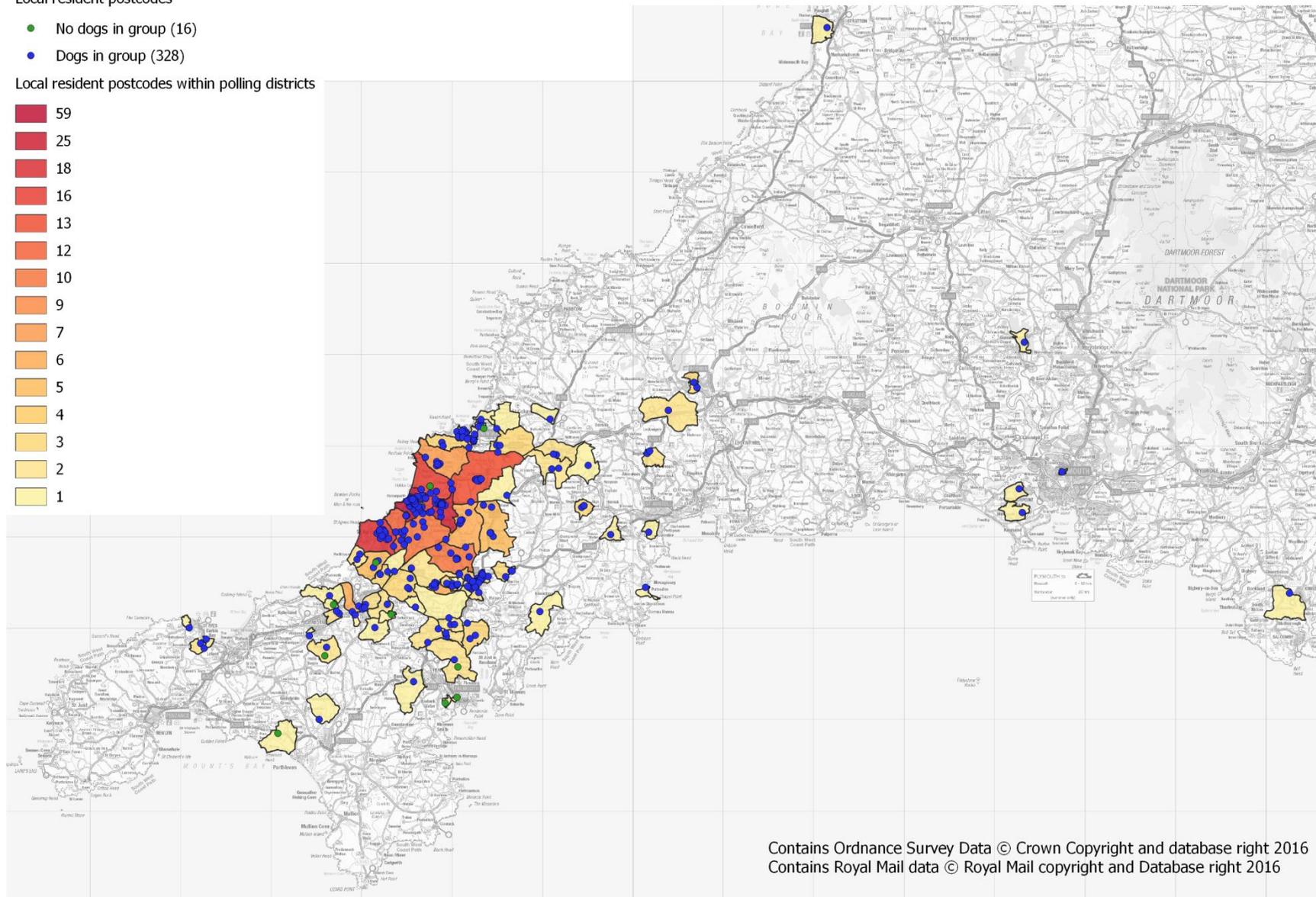
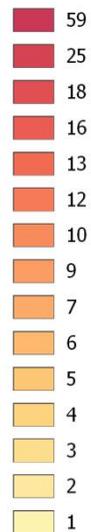
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Map 2: Location of local resident postcodes by polling district and categorised as to whether the interviewed group was accompanied by at least one dog

Local resident postcodes

- No dogs in group (16)
- Dogs in group (328)

Local resident postcodes within polling districts



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Visitor origin by distance and transport mode

- On average local resident groups who arrived by car lived 9.93km* from site with half living over 7.40km away
 - 75% of local resident groups who arrived by car lived within 12.45km* of the site
 - 50% of local resident groups who arrived by foot lived within 2.23km of their interview location
- *Distance is straight line distance between visitors origin and interview location

- 3.64 When quantifying how far visitors travel to a location it is important to consider the mode of transport used. Table 23 summarises the linear distance between the home postcode or hamlet to the survey location at which they were interviewed. Figure 2 illustrates the data presented in Table 23 and Figure 3 illustrates the same data as a cumulative percentage.
- 3.65 Those who arrived at the site by car on average lived 9.93km from the interview location with half living over 7.40km away. In total 75% of interviewed visitor groups who arrived by car lived within 12.45km of their interview location (Table 23, Figure 2 & Figure 3) and the maximum distance between the interview location and a visitor group's home was 95.98km (Table 23).
- 3.66 On average, half of visitor groups who arrived at site by foot lived within 2.23km of their interview location and 75% within 9.38km (Table 23). The three groups who arrived by horse all lived within 7.47km of their interview location.

Table 23: The linear distance (km) between survey location and interviewed local residents home postcode (or hamlet), categorised by transport mode used to access site. SE of mean is the standard error of the mean value.

Transport mode	Responses	Minimum	Quartile 1 (25%)	Median (50%)	Mean	SE of Mean	Quartile 3 (75%)	Maximum
Car	326	0.56	2.98	7.40	9.93	0.58	12.45	95.98
Foot	13	0.45	0.97	2.23	8.68	4.90	9.38	65.42
Horse	3	0.45	0.45	0.45	2.79	2.34	7.47	7.47
Not stated	2	1.65		2.50	2.50	0.85		3.35
Total	344							

Figure 2: Box plot of straight line distance between the home postcode of an interviewed local resident group and survey location, categorised by transport used to arrive at Penhale. The boxes represent the interquartile range (Q1 and Q3) and the mid line the median value given in Table 23. The graph is truncated at 45km.

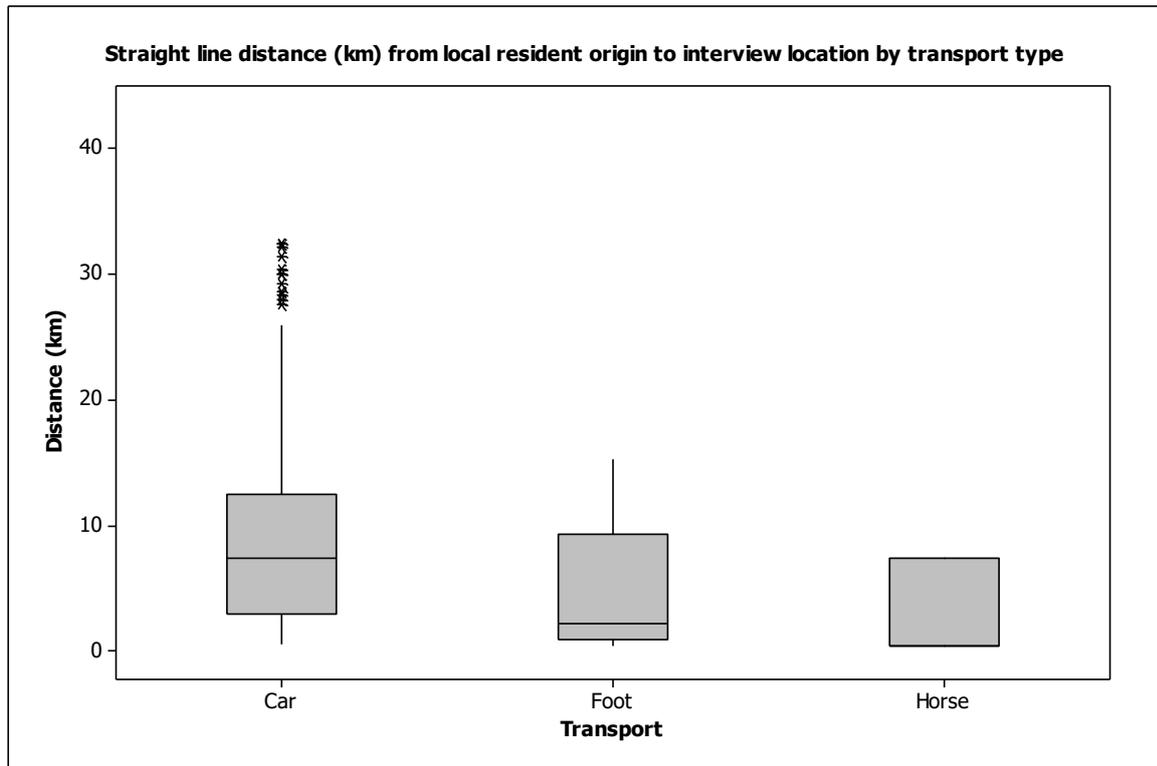
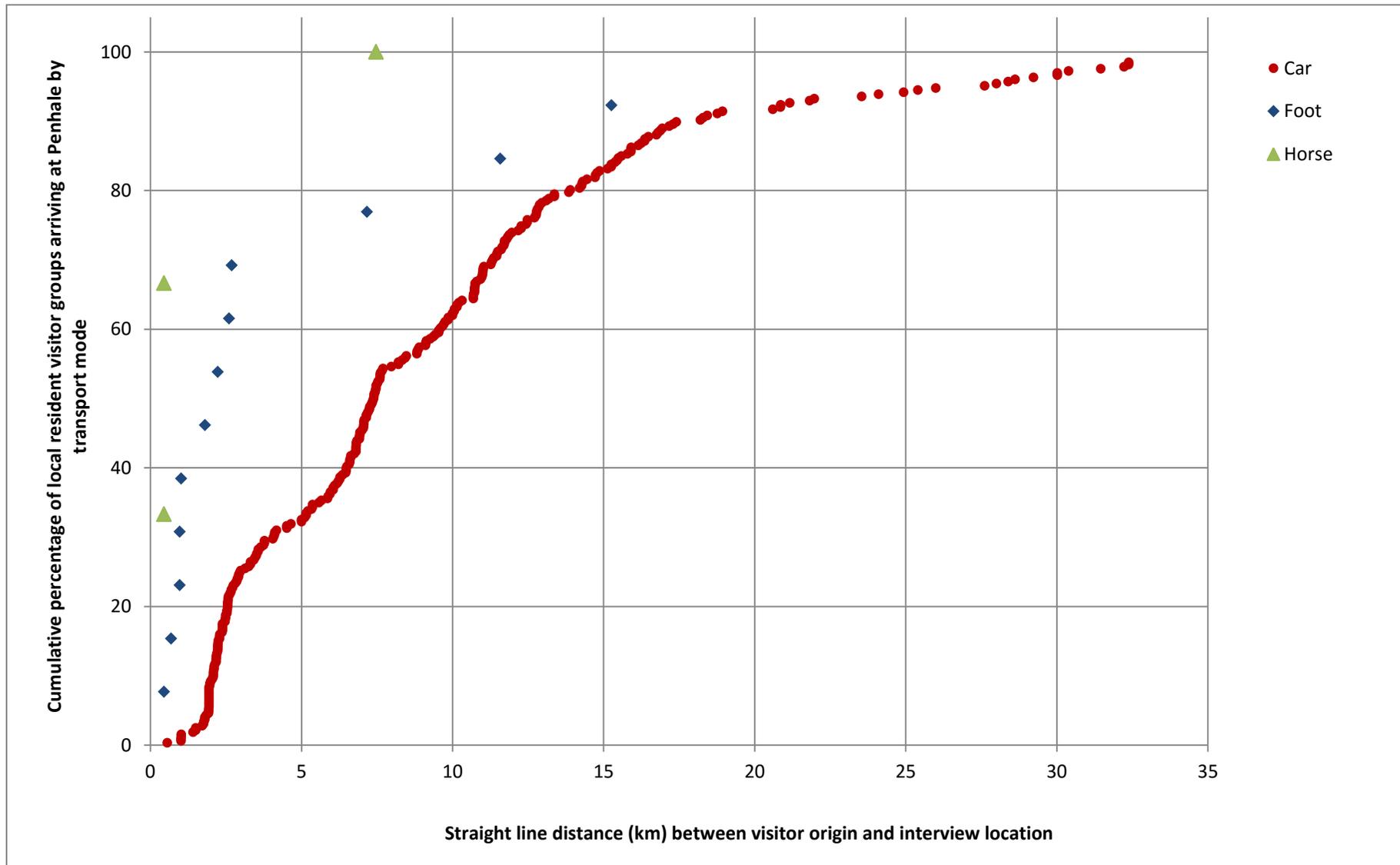


Figure 3: Cumulative percentage of interviewed visitor groups who arrived at their interview location by different transport modes against the liner distance between their home postcode and interview location. For presentation the figure has been truncated at 35km



Visitor origin by distance and visit frequency

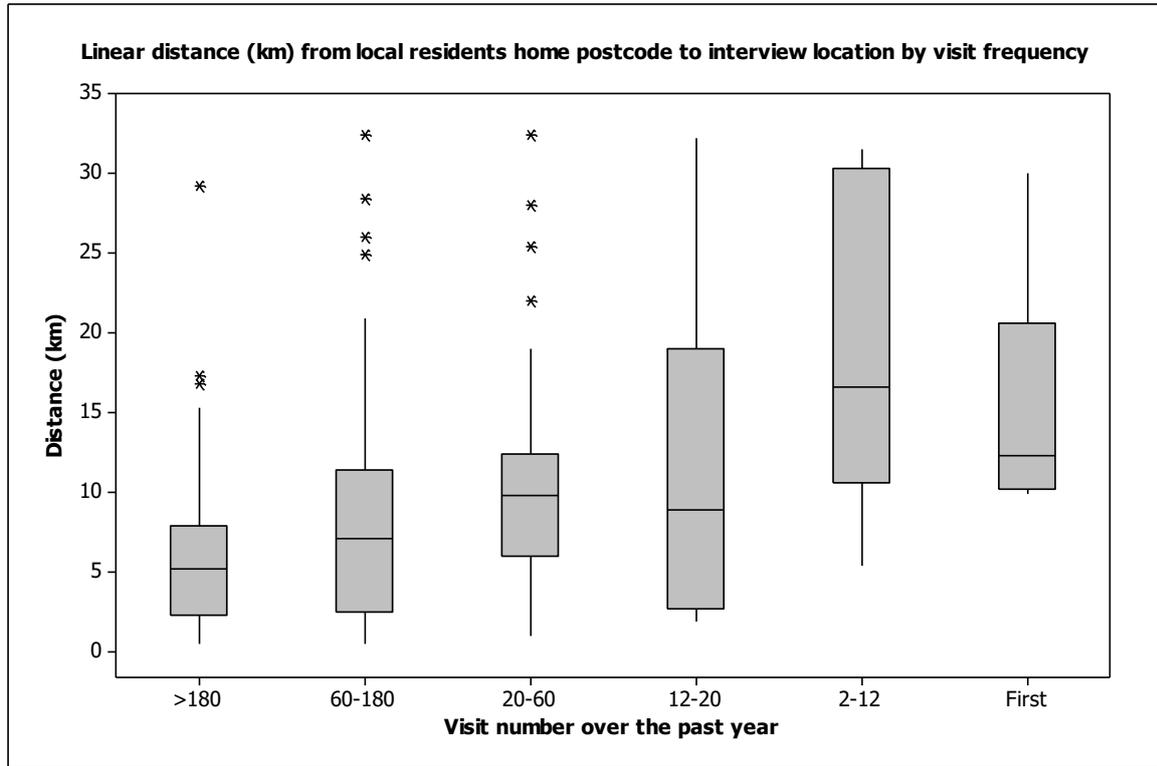
- 75% of the most frequent visitors (those who make over 180 annual visits) lived within 7.91km* of the site
 - 75% of local resident visitors who make at least 20 annual visits to the site lived within 12.37km* of the site
 - 75% of local resident visitors who make at least 12 annual visits lived within 19.02km* of the site
- *Distance is referred to as the straight line distance between visitor origin and interview location

- 3.67 To fully understand visitor patterns within the catchment area of a site also termed the 'Zone of Influence' (Zoi), the visit frequency of each group should be considered to establish those who most regularly make visits to a site.
- 3.68 Table 24, Figure 4 and Map 3 present these data and show that 75% of the most frequent visitors to the site (those that visit 'most days' and make over 180 visits a year) live within 7.91km of the site. Visitor groups who make visits to a site 'several times a month' (between 20 and 60 annual visits) should also be consider frequent visitors to a site and 75% of interviewed visitors who fell into this category lived within 12.37km (Table 24 and Figure 4).
- 3.69 There is an interesting link between Figure 3 and Table 24, in that when considering the Zoi of site, a good starting point is where the values on the y axis have very little increase over larger values on the x axis (as the gradient of the curve approaches zero). In Figure 3 the gradient of the cumulative frequency curve starts plateau, between 17.5km and 20km, which is contains the distance values of which 19.02km within which 75% of visitors who make between 2 and 12 visits Penhale originate (Table 23).

Table 24: The linear distance (km) between survey location and interviewed visitors home postcode, categorised by visit frequency expressed as the approximate number of visits undertaken to the site over the recent year. SE of mean is the standard error of the mean value.

Visit frequency	Responses	Minimum	Quartile 1 (25%)	Median (50%)	Mean	SE of Mean	Quartile 3 (75%)	Maximum
Most days (>180 annual visits)	112	0.45	2.23	5.14	6.90	0.93	7.91	95.98
A few times a week (60-180 visits)	114	0.45	2.53	7.13	8.15	0.58	11.42	32.38
Several times a month (20-60 visits)	64	1.02	5.97	9.81	10.86	1.23	12.37	70.18
About once a month (12-20)	26	1.92	2.69	8.90	12.18	1.83	19.02	32.23
Less than once a month (2-12 visits)	16	5.34	10.55	16.59	23.36	4.71	30.30	67.92
First visit	7	9.86	10.15	12.28	15.59	2.77	20.60	30.02
Not stated	5	3.70	5.50	24.10	33.50	13.80	66.30	67.10
Total	344							

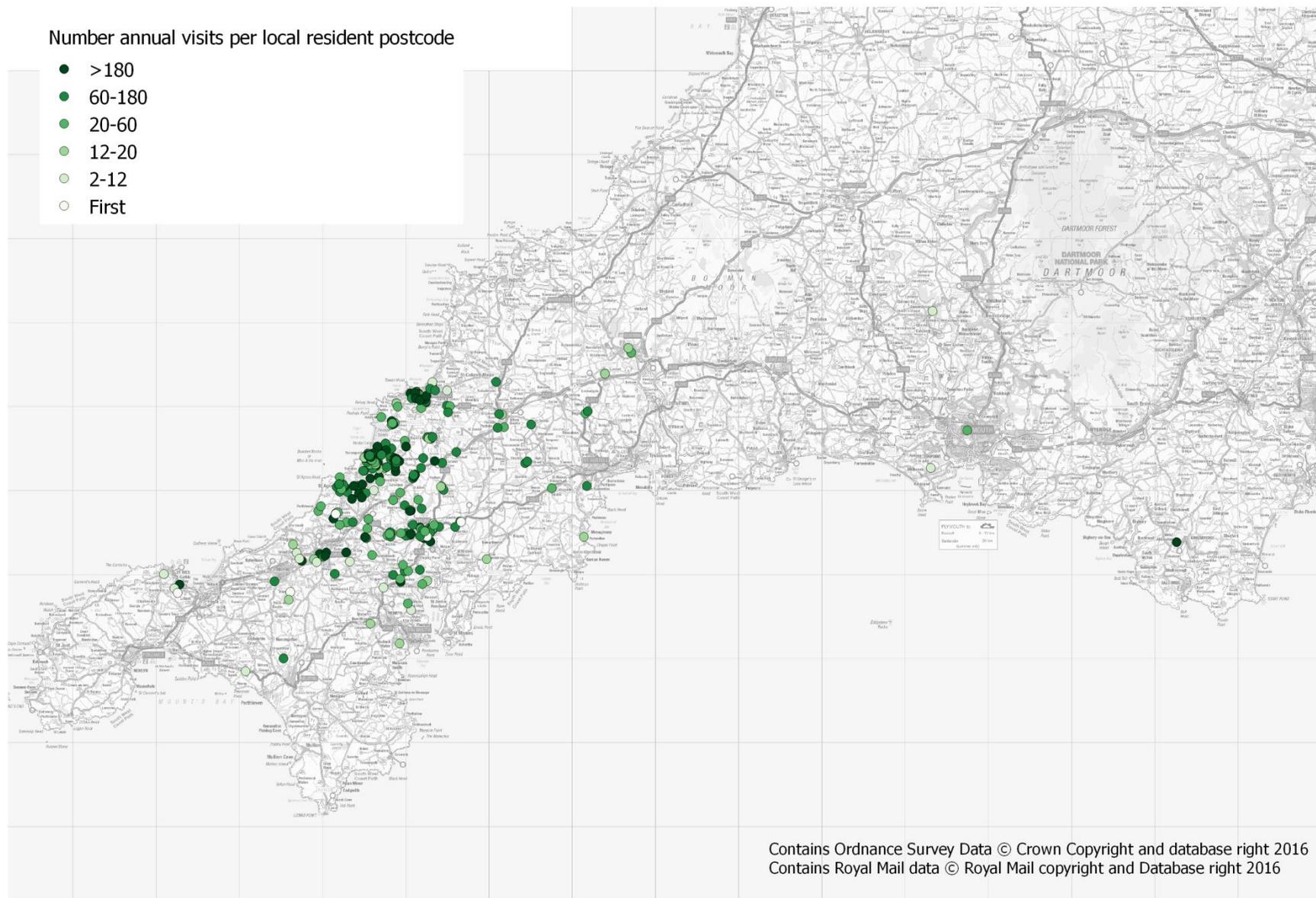
Figure 4: Box plot of straight line distance between the home postcode of an interviewed local resident group and survey location, categorised visit frequency. The boxes represent the interquartile range (Q1 and Q3) and the mid line the median value given in Table 24. The graph is truncated at 35km.



Map 3: Home postcode of interviewed local resident visitor groups to Penhale, colour coded by their visit frequency

Number annual visits per local resident postcode

- >180
- 60-180
- 20-60
- 12-20
- 2-12
- First



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Visitor origin by distance and frequency of local residents with dogs

- 75% of local resident groups with dogs who make >180 annual visits live within 7.98km
- 75% of local resident groups with dogs who make 60-180 annual visits live within 11.61km
- 75% of local resident groups with dogs that arrive by car live within 12.07km km
- 75% of local resident groups with dogs that arrive by foot live within 7.17km

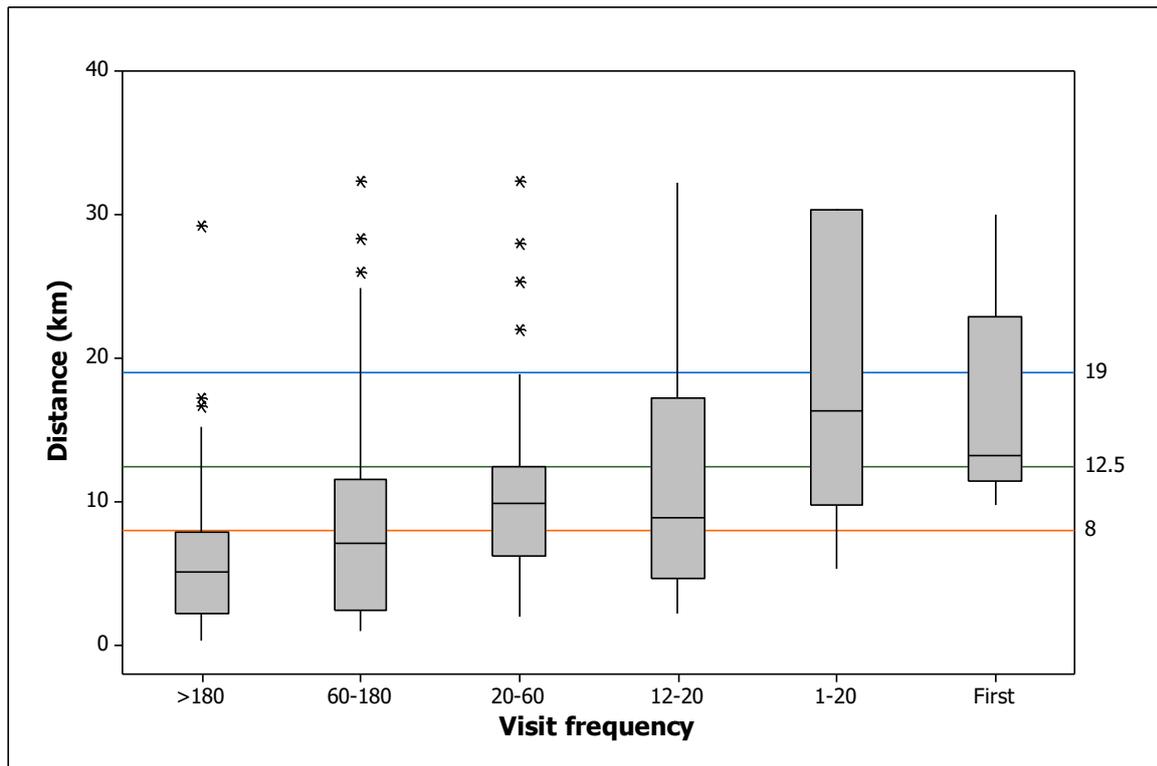
3.70 The visitor survey work has identified that 95% (Table 12) of local residents accompanied by dogs and are those who most frequently visit Penhale, and 97% of these groups make a minimum of 12 annual visits (Table 21). To further examine the spatial distribution of these visitors we consider their origin in relation to the transport used to access Penhale and visit frequency.

3.71 Of the 325 local resident groups accompanied by dogs 75% of those who stated they visit 'most days' and make over 180 annual visits to the site originate from within 7.98km of their interview location (Table 25 and Figure 5). Of the groups who stated they made a visit 'a few times a week' and 60-180 annual visits, 75% originated from within 11.61km (Table 25 and Figure 5).

Table 25: Visitor origin of local resident groups accompanied by at least one dog by visit frequency and straight line distance to interview location. Distance reported in km.

Visit frequency	Visitor postcodes	Minimum	Quartile 1 (25%)	Median	Mean	SE Mean	Quartile 3 (75%)	Maximum
Most days (>180 visits)	111	0.45	2.23	5.16	6.96	0.93	7.98	95.98
A few times a week (60-180 visits)	112	1.02	2.54	7.13	8.21	0.58	11.61	32.38
Several times a month (20-60 visits)	62	2.10	6.26	9.96	11.17	1.25	12.53	70.18
About once a month (12-20 visits)	22	2.30	4.71	8.90	12.16	1.94	17.24	32.23
Less than once a month (1-12 visits)	12	5.34	9.80	16.37	24.23	6.23	30.30	67.92
First time	6	9.86	11.44	13.28	16.50	3.09	22.96	30.02
Total	325							

Figure 5: Distance from origin to interview location of local resident groups who were accompanied by at least one dog categorised by visit frequency

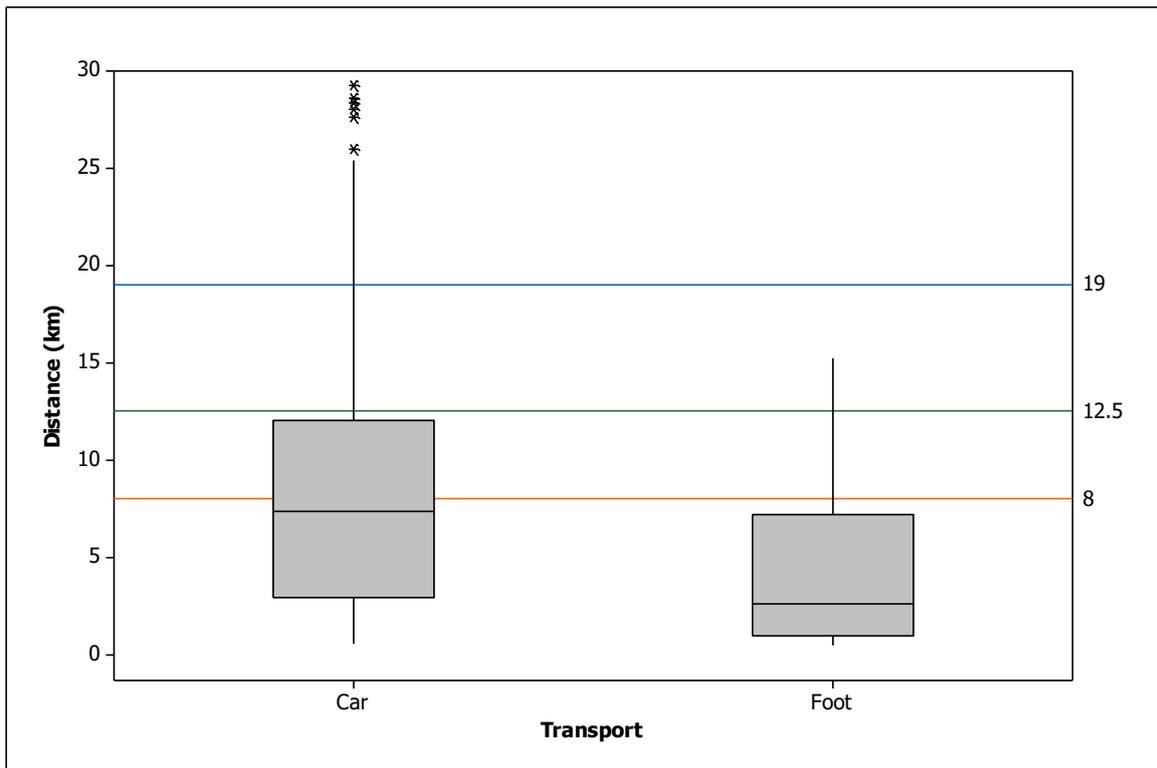


3.72 Exploration of the distance between visitor origin and transport mode for log resident groups accompanied by at least one dog identifies 75% of these who arrive by car groups live within 12.07km of the site and in comparison 75% of dog walking groups who arrive by foot live within 7.17km of the site (Table 26 and Figure 6).

Table 26: Visitor origin of local resident groups accompanied by at least one dog categorised by transport and straight line distance to interview location. Distance reported in km.

Transport	Visitor postcodes	Minimum	Quartile 1 (25%)	Median	Mean	SE Mean	Quartile 3 (75%)	Maximum
Car	313	0.56	2.92	7.35	9.73	0.59	12.07	95.98
Foot	11	0.45	0.97	2.60	4.79	1.46	7.17	15.26
Total	324							

Figure 6: Distance from origin to interview location of local resident groups who were accompanied by at least one dog considered by transport mode.

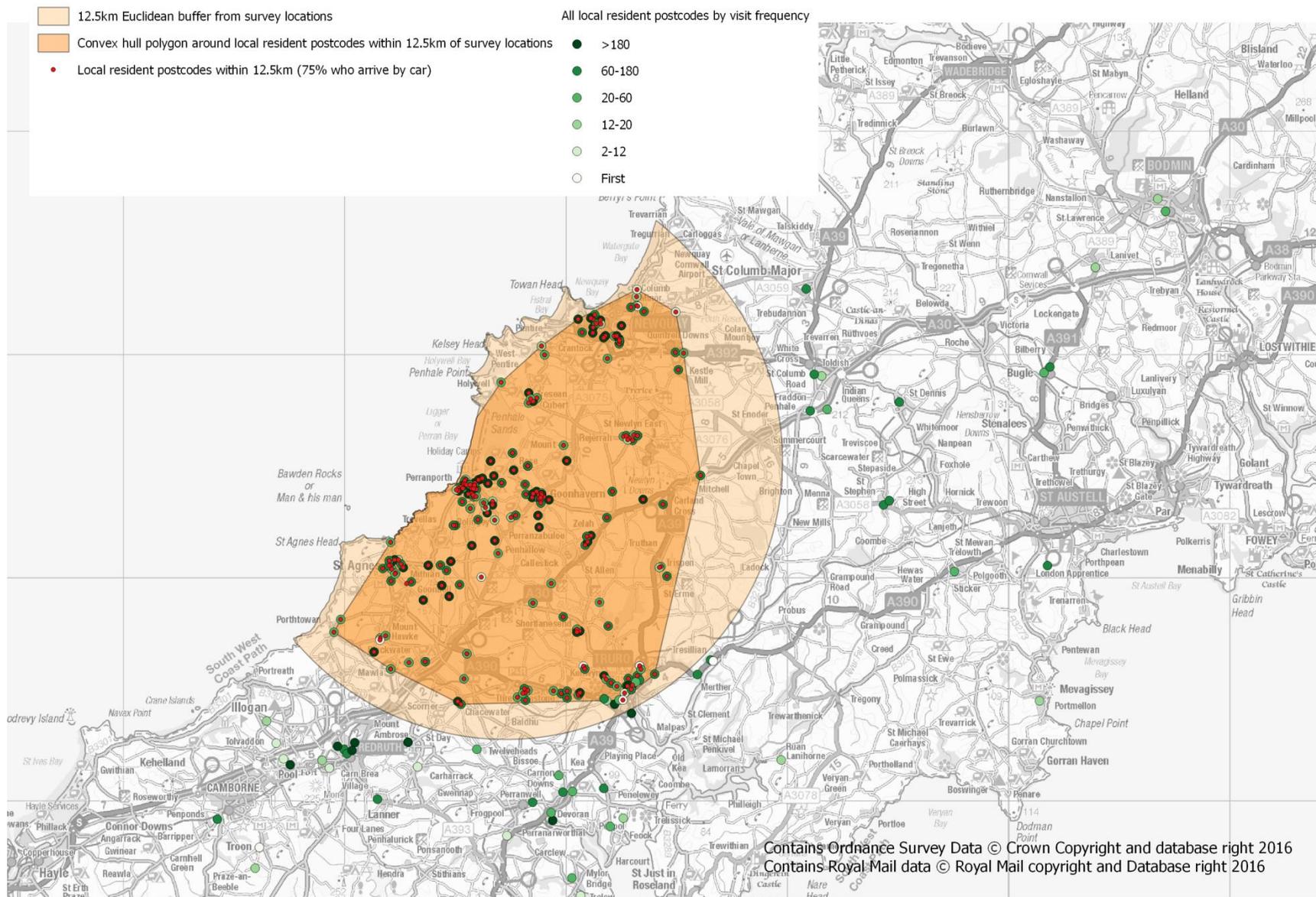


Zone of Influence (Zoi) of Penhale

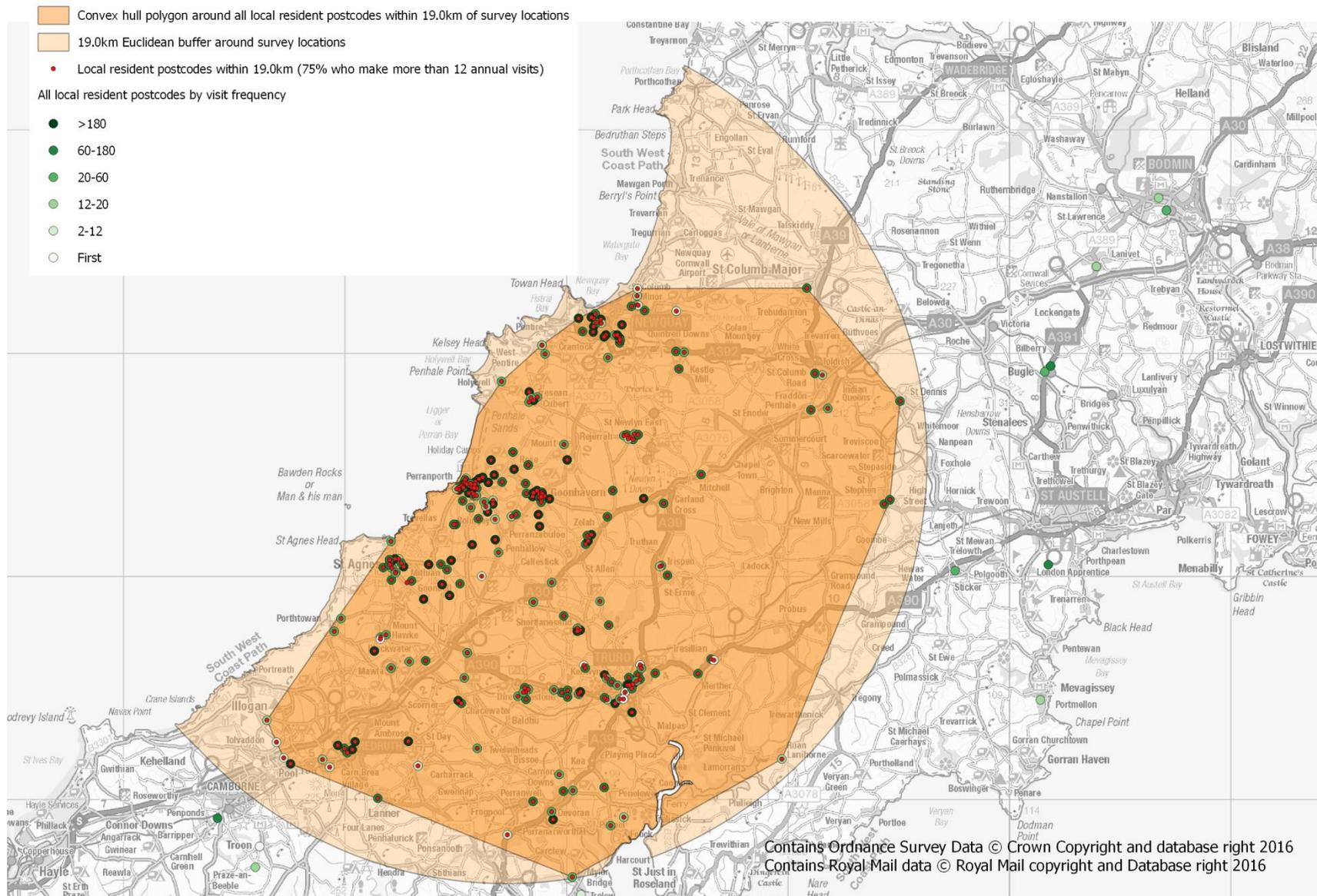
- Convex Hull and Euclidean buffers surrounding visitor origin of 75% of local residents at 12.5km are presented
- Convex Hull and Euclidean buffers surrounding visitor origin of 75% of local residents who make at least 12 annual visits at 19.0km to Penhale are presented
- The Convex Hull polygon and Euclidean buffers at 19.0km best describe the Zone of Influence of Penhale
- The Zone of Influence of a site should not be confused with the identification of a Zone of Payment. The Zone or Zones of Payment will fall within the Zone of Influence and should be informed by considering visit rate with distance from Penhale.

- 3.73 This report has explored the visitor patterns of both local and non-local visitor use of Penhale. The majority of visitors are local residents who undertake dog walking at the site (Table 12) and of these 87% do so at least 'several times a month' and 94% make a visit about 'once a month' (Table 21). In terms of transport to the site 95% of interviewed local resident groups arrive by car (Table 20). The distance between their origin and interview locations has been established.
- 3.74 Here, a sequence of maps is presented exploring options that encompass the origin of visitors around Penhale. The maps use two methodologies, the Euclidean buffer (a circle using the survey locations as the centre point) and a convex hull analysis, which creates the smallest polygon to encompass selected points, which here are home postcodes classified by linear distance to the site. The maps are presented with home postcodes that are aimed to assist the interpretation of the options.
- 3.75 Map 5 shows the options using the data from Table 23, where the home postcode location of 75% of local interviewed resident groups, who arrived by car resided within a straight line distance of 12.45km (the buffer is mapped to 12.5km for simplicity) of their interview location. Map 4, shows 12.5 km Euclidean buffer and convex hull polygon around these 75% of visitor postcodes.
- 3.76 Although the boundaries in Map 4 (based on home locations of 75% of visitor groups who arrive by car, Table 23) encompass many of the local resident postcodes, these boundaries do not capture the postcodes of the most frequent visitors who are known to regularly use the site (Map 6). In particular visitor groups who originate from Reduth area and those who reside north of Penryn.
- 3.77 Map 5 shows a similar approach with a Euclidean buffer and convex hull polygon, but considers the visit frequency category of 'about once a month' (between 12 and 20 annual visit) of local residents to the site (Table 24). The buffer distance is set at 19.0km the straight line distance between a visitor's home postcode and the survey location for 75% of local residents who make at least 12 annual visits to Penhale (Table 24). The convex hull polygon uses the same data set, but draws the smallest polygon that encompasses all these home postcodes (Map 5).
- 3.78 The Zone of Influence for Penhale is best described by the 19.0km boundaries which encompass the majority of postcodes from the most frequent local resident visitors. The identification of 'Zones of Payment' requires further consideration of visit rates and visitor patterns to the site.

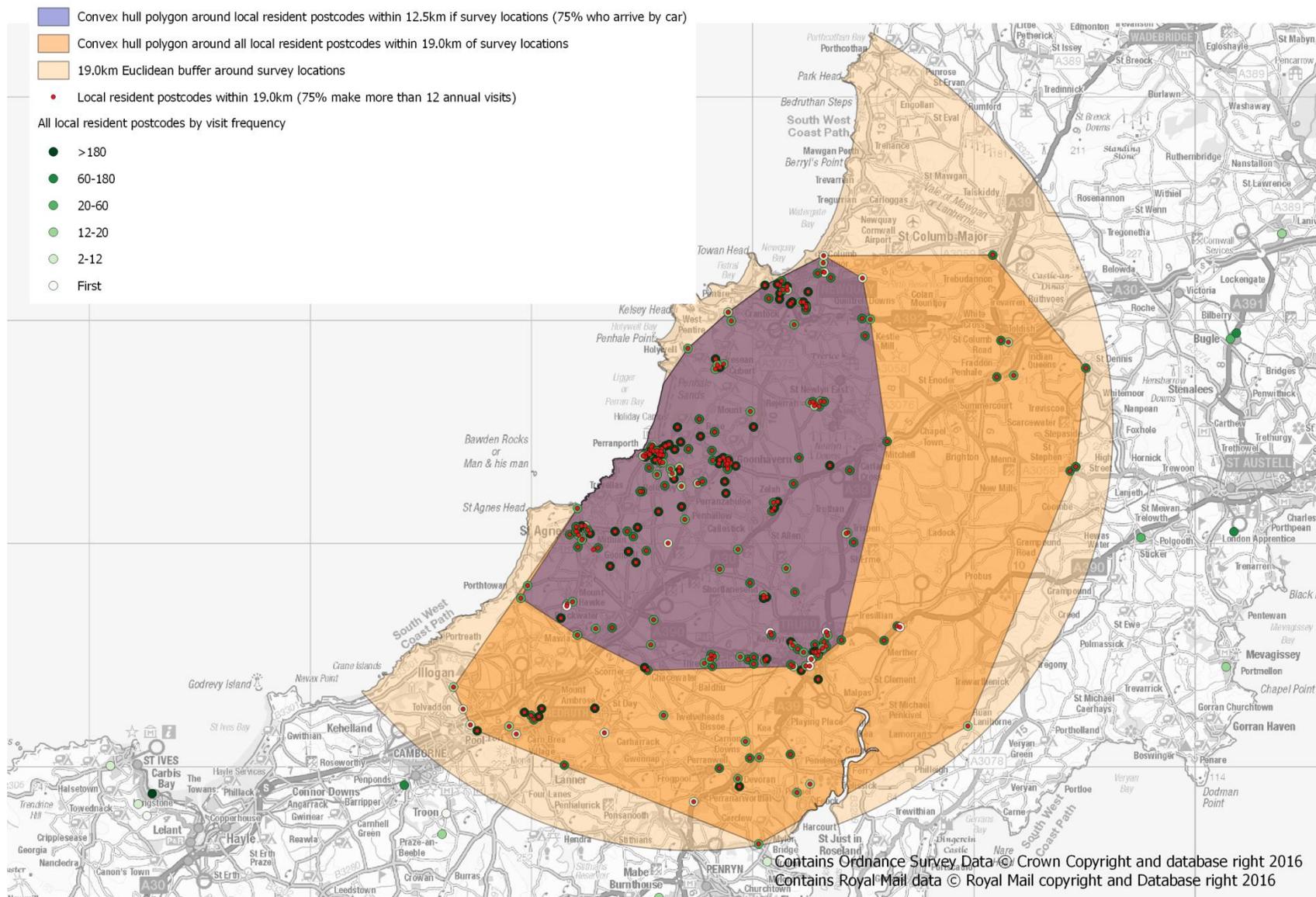
Map 4: 12.5km Euclidean buffer and Convex Hull polygon around 75% of local residents arriving by car showing the home postcodes of visitors coded by visit frequency, and those postcodes contained within the Convex Hull.



Map 5: 19.0 km Euclidean buffer and Convex Hull polygon around 75% of the home postcodes of local resident visitors who make more than 12 annual visits to Penhale



Map 6: Comparison of the 19.0km Euclidean buffer and Convex Hull polygons that encapsulate 75% of interviewees who make a minimum of 12 annual visits to Penhale and the Convex Hull polygon of 75% of interviewees who arrive at Penhale by car



4 Visit rates, estimates and predictions

- Visit rates, estimates and predictions were generated only from interviewed local residents and are not scaled up to encompass estimates from all local residents (those who were not interviewed on site) due to data constraints
- A high proportion of local residents living within 500m of the survey locations made recreational visits to Penhale
- Estimate 70% of visits originate from within 8,000m
- In light of a 23% increase in housing within 12,500m of Penhale, a 22% predicted increase in recreational visits is expected in the order of 6,700 new people visits per year (true value will be higher as it was not possible to account for the proportion of visitor groups interviewed in relation to those observed using the site)

Housing

- 4.1 Figure 7 illustrates the number of residential properties at different distance bands surrounding the Penhale survey locations. The distance bands are essentially 'ring' buffers and the housing are generated from the number of properties 'within' each concentric ring buffer.
- 4.2 The housing totals surrounding the survey locations at Penhale show a limited volume of properties in the immediate vicinity of the site with increasing totals reflecting more developed and urban areas with increasing distance. The peak in housing between 2000m and 3500m reflects the settlement of Perranporth, Newquay and St Agnes fall between 6500 and 7500m buffer; Truro and Threemilestone are reflected by the housing increase between 11000m and 12500m. Part of the settlements of Illogan, Reduth, Camborne, Pool, Carnon Downs and Probus fall within the distance bands between 14500m and 16500m.

Visit frequency considered per buffer distance

- 4.3 The percentage contribution of visitors originating from different distance bands were examined for all groups who provided valid postcode and visit frequency information across all the surveys totalling 136 hours of survey effort (Figure 8).
- 4.4 Figure 8 has four clear peaks which show the popularity of the site amongst visitors who reside in each distance band and the major settlements. However, caution is needed with interpretation as a high percentage value could mean one of two things; either, a small number of groups visit frequently, or a large number of groups visit less frequently. Also worthy of consideration is the coarse nature of the visit category which represent the minimum number of annual visits within each category and visitor groups who responded they visit most days were categorised as making a minimum of 180 annual visits, when in fact they may make over 300. This considered, there are clear similarities between Figure 8 and Figure 7, indicating a relationship between housing numbers and visits to Penhale
- 4.5 Figure 9 illustrates the values in Figure 8 as cumulative percentage totals. Caution should be expressed when interpreting this chart as the visit frequency categories serve only as an indication as to the minimum number of visits made by dwellings located within each distance band. These data closely correspond with the distance of 8,000m within which 75% of local resident groups accompanied by dogs and who make more than 180 annual visits originate (Table 25), in this exploration (Figure 9) we estimate 70% of visits originate within 8,000m of Penhale. The limitations of the tally data collection during the survey work means it is not possible or advisable to scale up these values to actual number of visits, and this examination serves as a tool to further understand the visit patterns of interviewed groups. with the evidence

Figure 7: Total number of residential properties per distance band around survey locations at Penhale

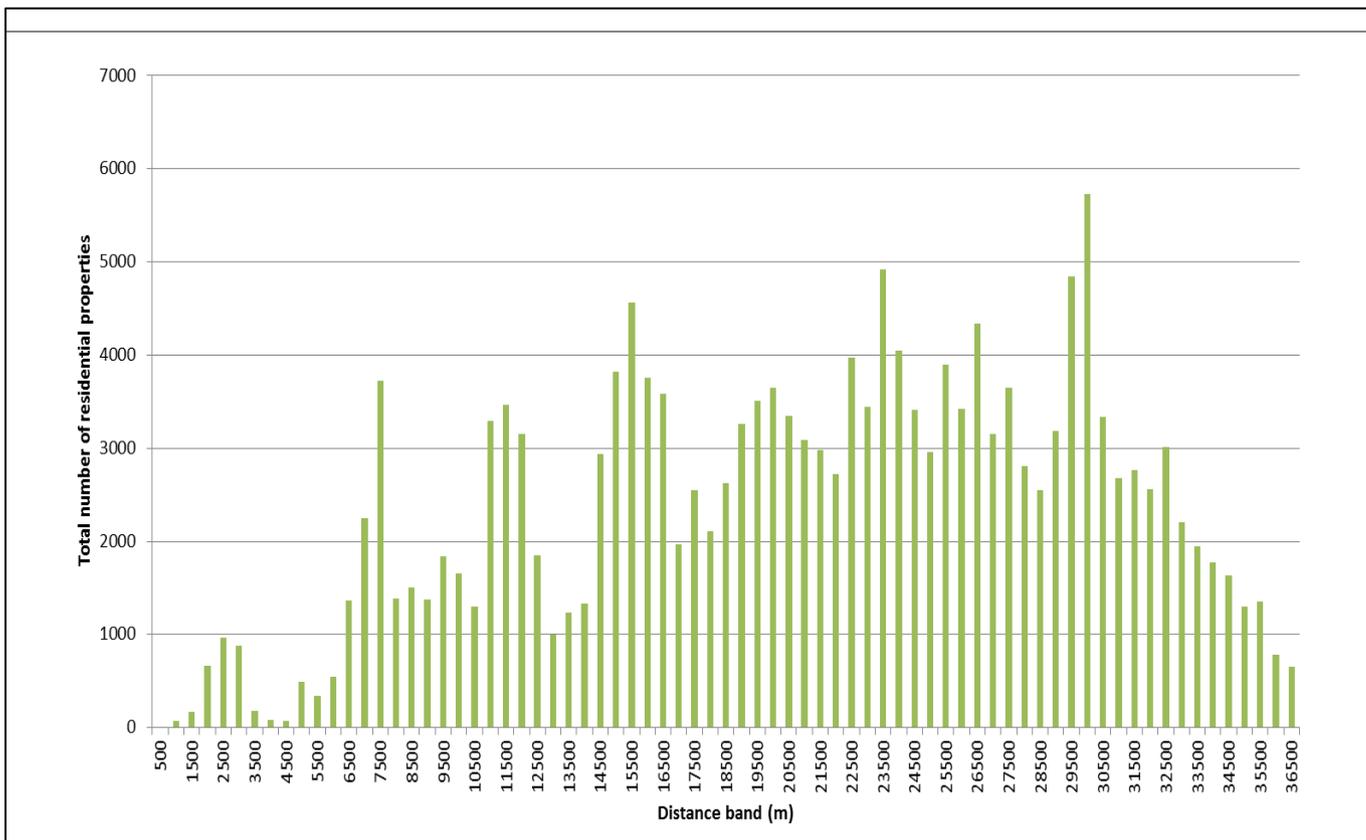


Figure 8: Percentage of visits made by interviewed groups who provided geocodable origin data and visit frequency data. Data from all survey sessions were included (136 hours of survey effort)

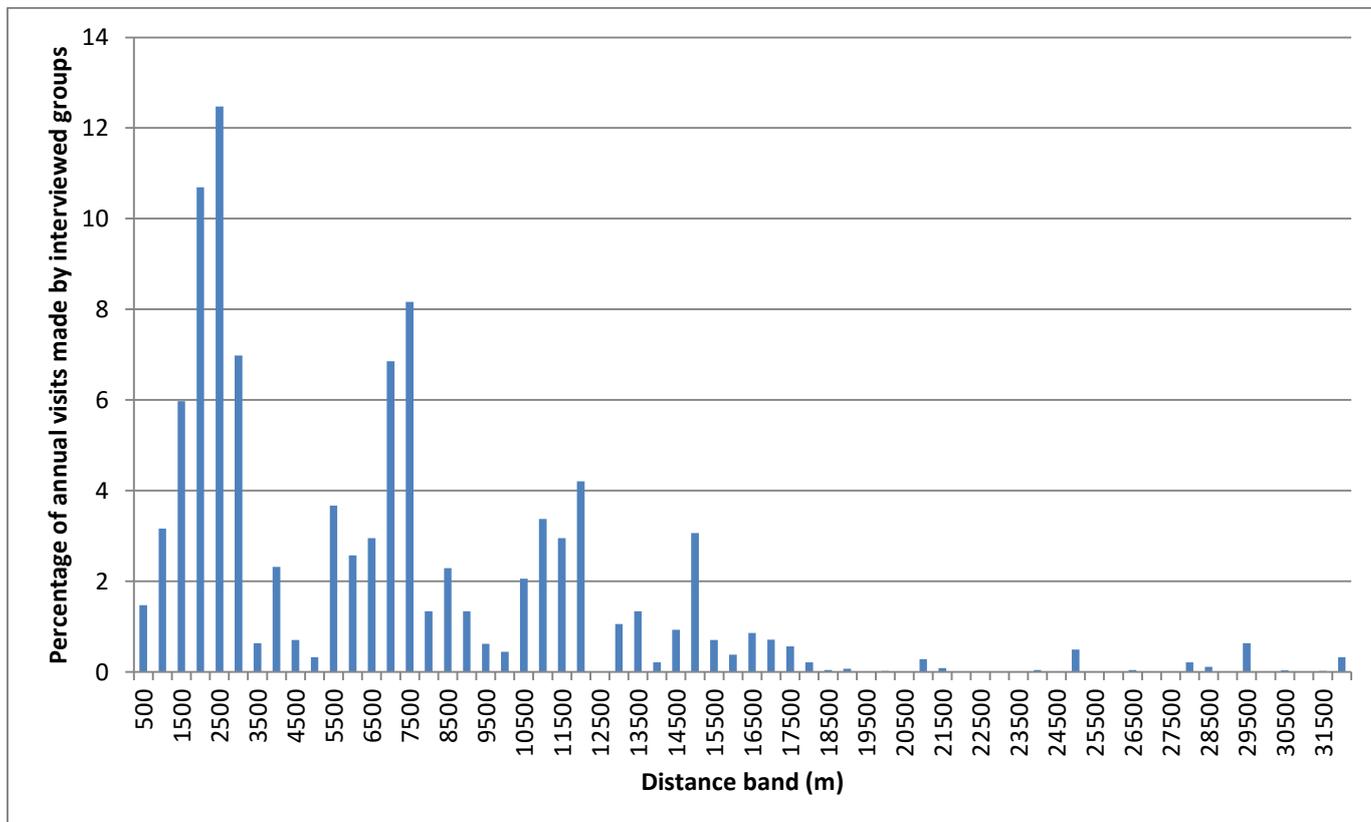
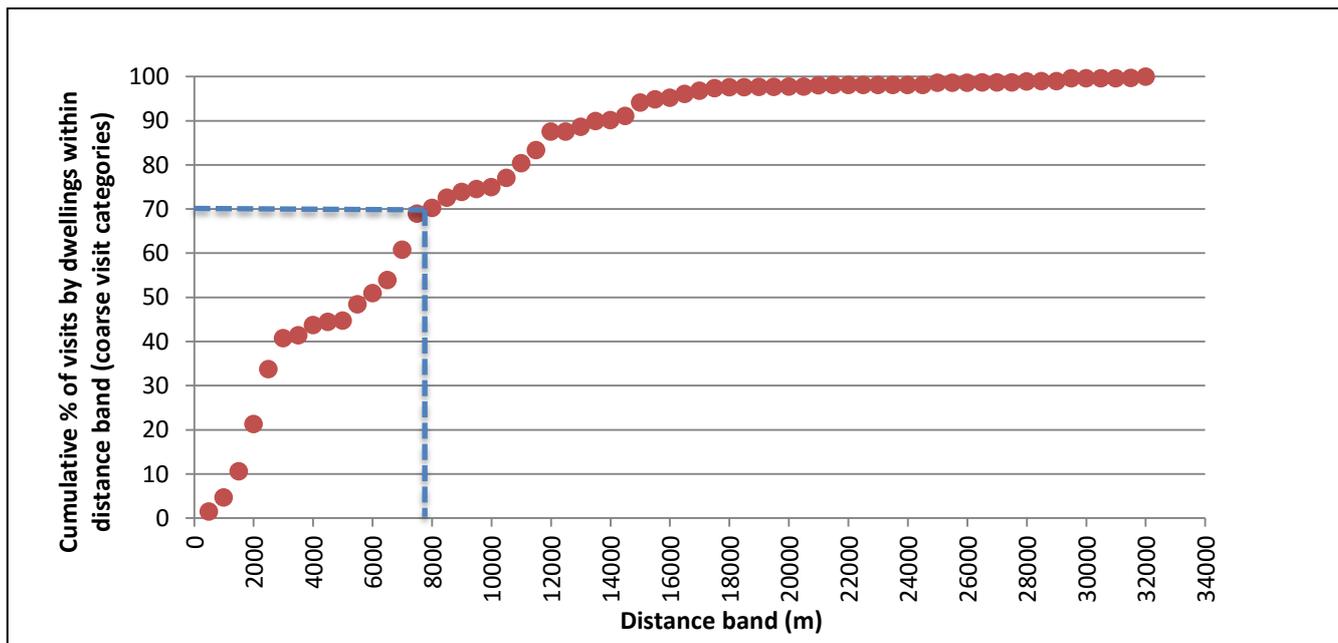


Figure 9: Cumulative percentage of the number of minimum visits made to Penhale categorised by visit frequency as expressed as a percentage of the visit totals of this category from the 136 hours of survey effort per postcode within each distance band. The blue line indicates a cumulative percentage of 70% of visits at the 8,000m distance band



Visit Rates and Predictions

Visit rates

- 4.7 The visitor predictions assume all visitors across the survey locations were interviewed, which is known not to be the case, but in the absence of accurate tally, it is not possible to scale up these estimates to reflect the proportion of visitors interviewed to those actually recorded using the site. Therefore, values and figures presented reflect only the visit numbers and rate of those actually interviewed; the true values will be higher.
- 4.8 Figure 10 illustrates the visit rates of people to the site who originate from each distance band. A high proportion of visitors within the 500m distance band visit Penhale (Figure 10), the data behind this point show there are currently 5 residential properties within 500m of the survey locations accounting for 12 individuals (5 multiplied by average occupancy rate of 2.4) and of these, six individuals were recorded within the three interviewed groups which originated from postcodes within this band. With this understanding of why the data point is outlying, it can be excluded from analyses so as not to skew or incorrectly weight the model results (previous iterations of the model included this data point and the visit estimates generated were unrealistic).
- 4.9 Figure 11 shows a truncated version of the rate curve in Figure 10 to investigate how the visit rate (people per day) fluctuates with distance from the site. The visit rate declines with distance and stabilises at distances over 8,000m, a finding which again coincides with origin data from local dog walking visitors and exploration of the origin of visits (Table 25, Figure 5 and Figure 9).
- 4.10 Data points up to 18,500m were considered for the modelling exercise as the brief for this study is concerned with examining the likely increase in visits to Penhale from future housing arising within 12,500m of the survey locations.
- 4.11 Figure 12 presents these data and associated visit rate, per person per day, per dwelling. The r^2 value of the model is an indication of fit and the value of 0.81 can be interpreted as 81% of the variation in the visit rate can be accounted for by the housing levels within each distance band. The model is a good fit to the data.
- 4.12 The decline in visit rates noted in Figure 10, Figure 12 and Figure 12 is reflective of visit frequency, as the survey methodology assumes a random sample of visitors were interviewed over the year and the model input data were adjusted to reflect a 12 day length using data gathered from each season. Therefore, the adjusted data (to reflect daily visit pattern) is representative of the proportion of visitors who make trips to Penhale from the resident population within each distance band, and as the visitor survey interpretation has shown, it is those visitors who live nearer to the site, that visit most regularly.

Figure 10: Visit rate of people visits per day per dwelling within each concentric distance band around the survey locations at Penhale up to 18,500m

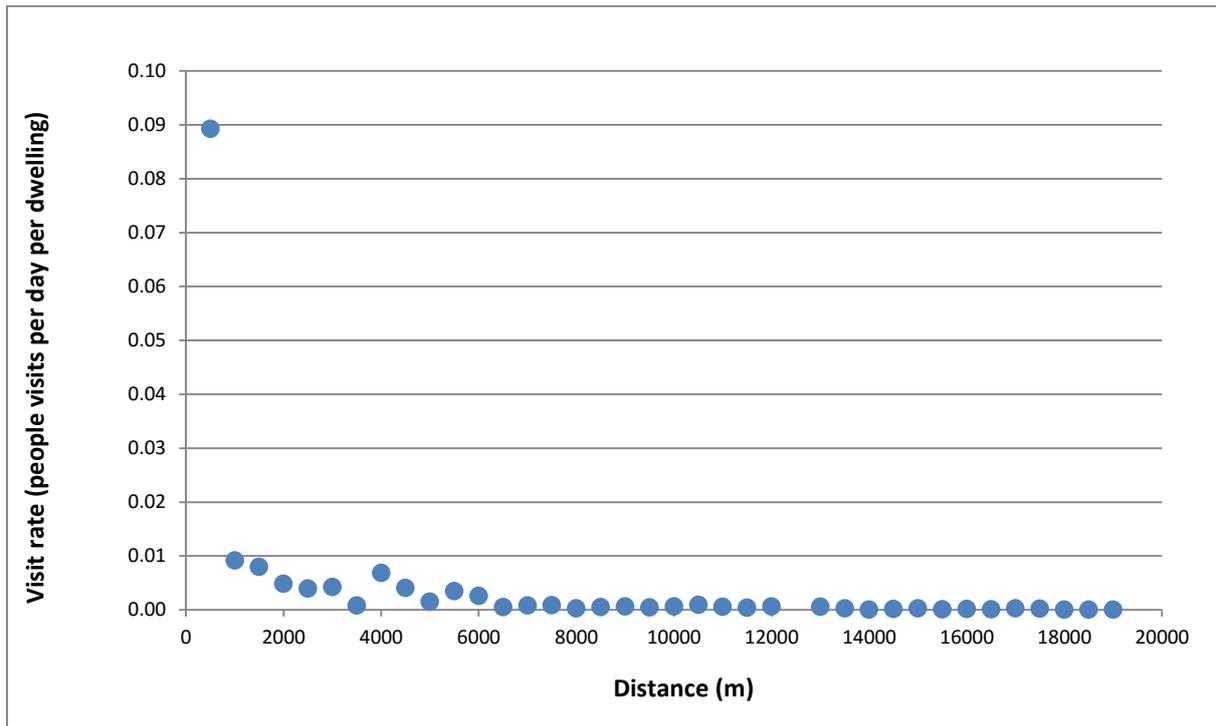


Figure 11: Visit rate of people visits per day per dwelling within each concentric distance band around the survey locations at Penhale up to 18,500m, y axis truncated at 0.01

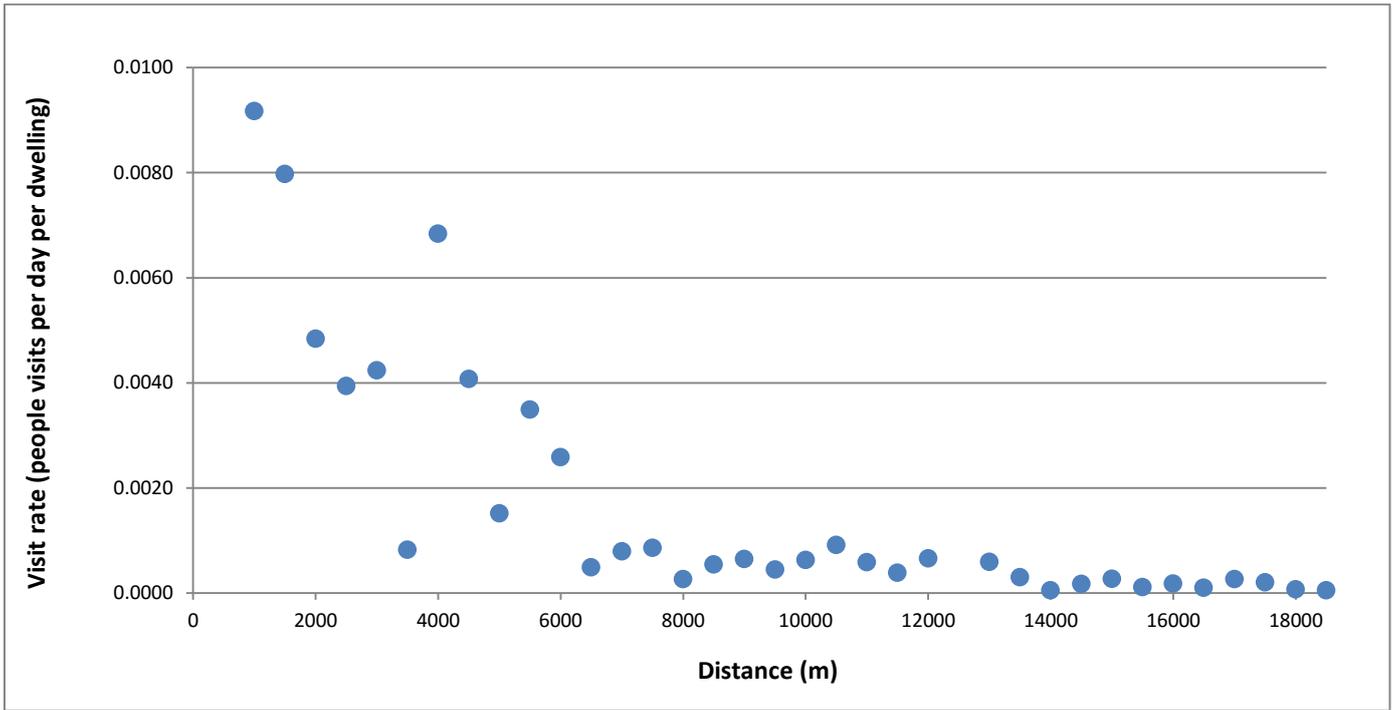
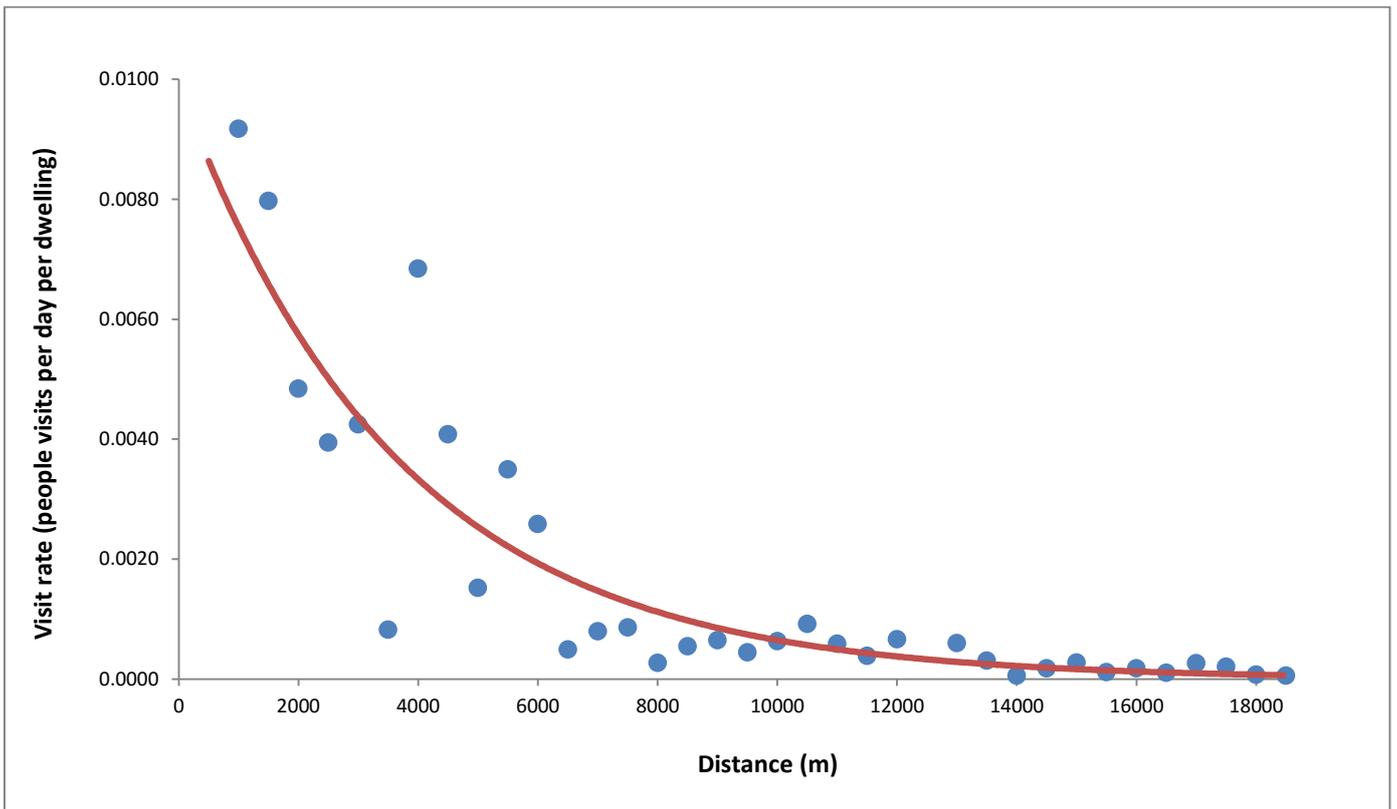


Figure 12: Visit rate of people visits per day per dwelling within each concentric distance band around the survey locations at Penhale. Trend line of $y = 0.0999e^{-0.0003x}$ trend fitted by eye with R^2 value of 0.81



Current visit totals

- 4.13 Predicted estimates of visit numbers to Penhale by residents within specific distance bands were generated using the visit rate from the model fitted to the data in Figure 12. Although the absolute values do not fully reflect the true visit numbers the proportion measures serve as a good indication as to the visit habits of interviewed local residents within the distance bands (Table 27).
- 4.14 Interviewed residents living between 1,000m and 2,500m are estimated to make around the region of 8,489 annual visits to Penhale with interviewed residents living between the buffer distances of 1000m to 12,500m from site making an estimated 30,459 annual visits. These visit estimates will be lower than the true value as the methodology has assumed all visitors to the site were interviewed.

Table 27: Estimates of the predicted number of annual visits made to Penhale by residents living within distance band categories. These data should be interpreted in line with the limitations of the survey methodology and study data, but serve as a useful indication as to current levels of use. An occupancy rate of 2.4 people per dwelling was used generate visit totals.

Buffer distance (m)	Predicted current number of annual people visits to Penhale from residents within specified distance band
1,000-2,500	8,489
3,000-4,500	4,033
5,000-6,500	3,982
7,000-8,500	7,902
9,000-10,500	2,923
11,000-12,500	3,129
Total annual visits by residents living between 1000m and 12,500m buffers of survey locations	30,459

Future housing and visit numbers

- 4.15 Housing data totalling 7,642 new dwellings were supplied by buffer distance bands up to 12,500m from the survey locations, as the exact location of future housing within and adjacent to specific settlements is yet to be finalised. These housing data were allocated to a 500m distance buffer best represented by the geography of the settlement and Figure 13 illustrates the distance bands from the Penhale survey locations, to which the new housing is tentatively allocated. Within the 6,500m and 8,000m distance bands approximately 60% more housing is predicted and 70% increase within 10,500m buffer.
- 4.16 The new housing totals were added to existing housing within each relevant distance band (Figure 13) and the model equation was used to generate the number of annual people visits, per distance band under this scenario. As the precise location of future housing is yet to be confirmed, visits were summarised per 1,500m distance band (Table 28).
- 4.17 Overall, it is predicted a 23% increase in housing within 12,500m of Penhale, will result in approximately a 21% annual increase in the number of visits (in the order of 6,300) made by residents associated with the new housing (Table 28). The absolute value of the visit total will be higher as it was not possible to account for the proportion of visitors interviewed to those using the site.

Figure 13: The location of existing and future housing per buffer distance band surround the Penhale survey locations

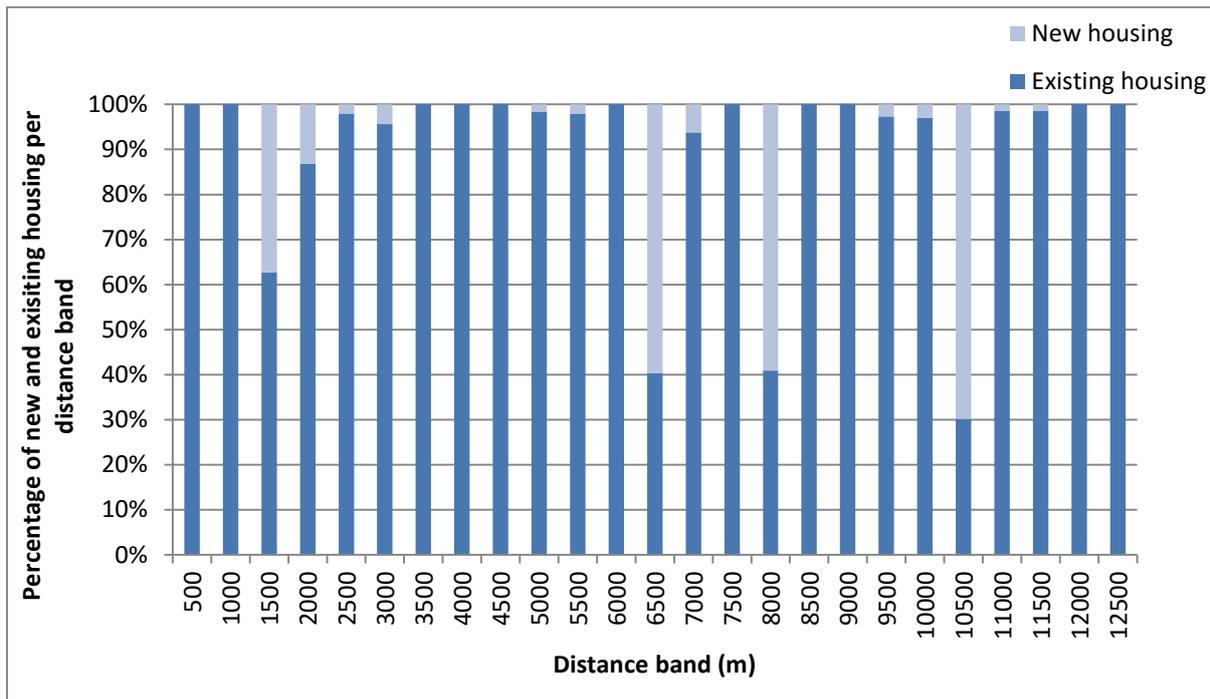


Table 28: The estimated level of predicted current and future visits to Penhale with present and future new housing in different distance bands surrounding Penhale. These data should be interpreted in line with the limitations of the survey methodology and study data. An occupancy rate of 2.4 people per dwelling was used to generate current visit totals and an occupancy rate of 2.27 was used to generate future visit predictions to predict the anticipated reduction in household size with the supply of new housing (data supplied by Cornwall Council)

Buffer distance (m)	Current predicted visits	Housing increase per distance band (%)	Additional visits arising from new development	Percentage increase in visits per distance band
1,000-2,500	8,489	12	1,051	12
3,000-4,500	4,033	3	133	3
5,000-6,500	3,982	74	2,380	60
7,000-8,500	7,902	24	1,639	21
9,000-10,500	2,923	50	1,099	38
11,000-12,500	3,129	1	28	1
1,000-12,500	30,459	23	6,329	21

5 Identification of Zone of Payment

- Evidence suggests two Zone of Payments within the Zone of Influence are appropriate for Penhale
- The first zone is recommended between 500m – 8000m
- The second zone is recommended between 8000m – 12,000m
- Data indicate the weighting of the first payment zone (500m – 8000m) should be 2.45 times that of the outer payment zone.

Zone of Payment

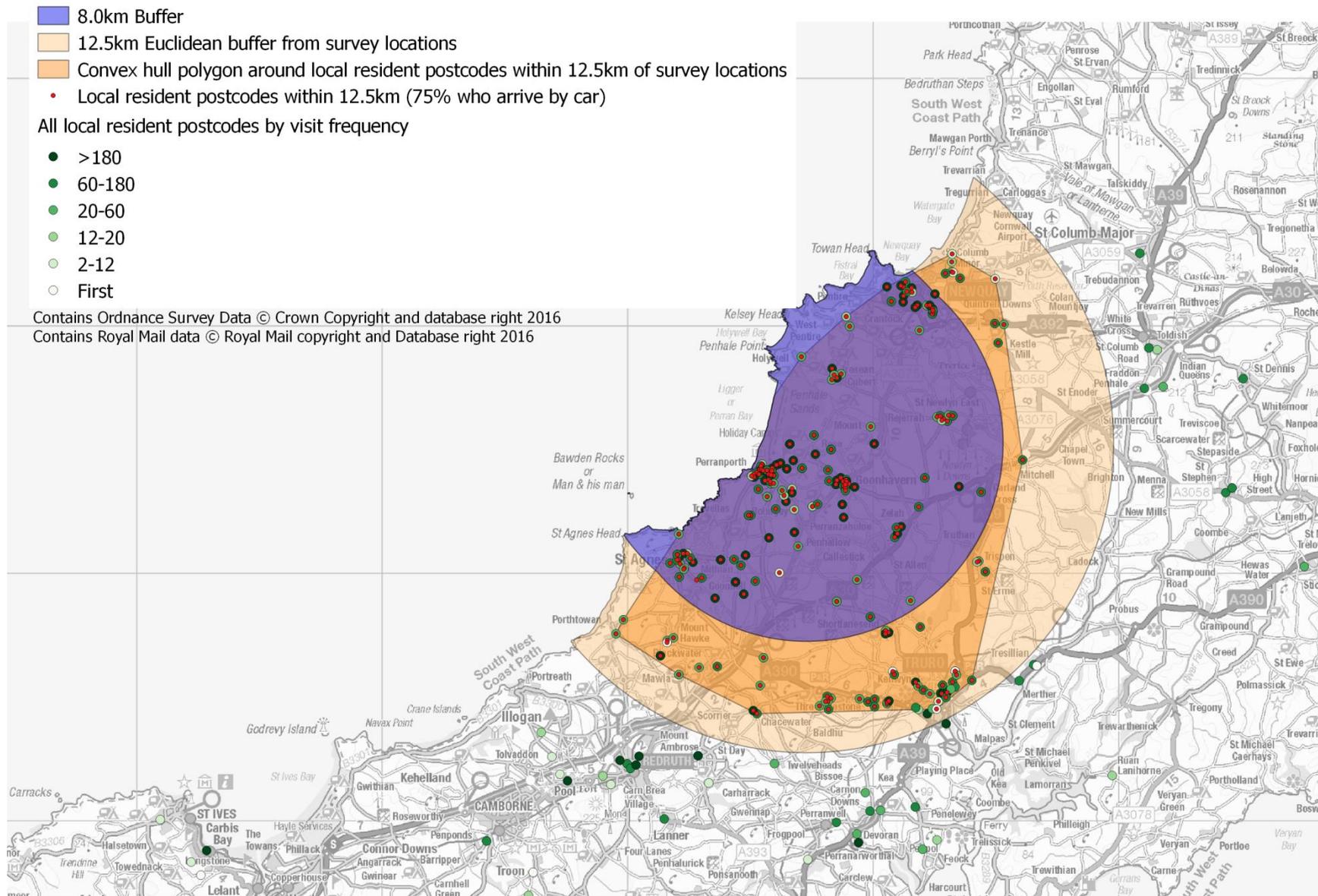
- 5.1 The comprehensive data set gathered from the visitor field work has provided a solid evidence base which has identified a 19.0km Zone of Influence around Penhale. Previous studies have identified catchment areas which the majority of visitors to a site reside as 'Zones of Payment'. These ZoP are, informed by the origin of 75% of local resident visitors to the site.
- 5.2 The visit patterns at Penhale indicate the identification of the this 'Zone of Payment Zone' should not be based solely the number of local resident visitors to the site, but on the catchment of the number of local resident visitors who arrive by car (95% of local resident groups), as only 11 visitor groups were interviewed who arrived by foot. On this basis, the 75% catchment area is that by 12.5km in (Map 4), either the Convex Hull polygon or Euclidean Buffer.
- 5.3 The next step is to consider whether within this 12.5km zone there is evidence to identify another zone from which more frequent visitors to Penhale originate.
- 5.4 To examine whether it could be appropriate to associate visitors to one of two catchment zones, we summarise data presented in this report based on two distance zones, one concerning visitors who reside between 500m and 8,000m and those who originated from over 8,000m to 12,500m from the survey locations (Table 29). However the data are considered, whether it be visits, proportion of visitors who arrive by car, local residents with dogs, decline and stabilisation of visit rate curve, there is a clear and consistent visit pattern with the majority of regular visitors to the site originating within 8,000m of Penhale (Table 29).
- 5.5 In terms of how to approach weighting a payment zone between 500m and 8000m and 8000m to 12500m, a simple approach seems most appropriate given the consistency of the survey data. It is suggested that as 191 visitor postcodes fall within the 500m – 8000m distance band and 78 visitor postcodes fall within 8000m – 12000m distance band that a ratio between the two 191:78 would be appropriate. This amounts to a weighting of 2.45 within the 500m – 8000m zone in comparison to the 8000m – 12000m zone (Table 28), the zones are presented in Map 7.

Table 29: Summary of visitor origin and distances from Penhale for local residents by visit frequency, transport and activity

Visitor category	Count (as % of all local resident postcodes)
Postcode Total	335 (100)
Visitor postcodes within 1000m - 8000m	191 (57)
Visitor postcodes within distance bands 8500m - 12500	78 (23)
Ratio of visitor postcodes within (1,000m-8,000m):(8500m-12,500m) (weighting)	2.45
Distance from site of 75% who arrive by car	12.45 (km)
Distance from site of 75% who visit most days	7.91 (km)
Distance from site of 75% of local resident visitor groups with dogs who make >180 annual visits	7.98 (km)
Distance from site of 75% of local resident visitor groups with dogs who make 60-180 annual visits	11.61 (km)

Distance within which 70% of visits occur (coarse categories)	8.00 (km)
Distance within which 88% of visits occur (coarse categories)	12.00 (km)

Map 7: Identification of possible Zones of Payment the 12.5km zones and 8km zone



Appendix

Table 30: Visitor origin of interviewed local resident groups considered by Ward

Ward	Postcode total	Ward	Postcode total
Perranporth	85	Illogan	2
Newlyn and Goonhavern	49	Lanivet and Blisland	2
St. Agnes	31	Mevagissey	2
Truro Boscawen	18	Newquay Pentire	2
Chacewater, Kenwyn and Baldhu	17	Penryn East and Mylor	2
Ladock, St. Clement and St. Erme	14	Pool and Tehidy	2
Newquay Treloggan	12	Rruth Central	2
Mount Hawke and Portreath	10	Truro Tregolls	2
Threemilestone and Gloweth	9	Bude	1
Truro Trehaverne	9	Camborne Pendarves	1
Feock and Playing Place	7	Falmouth Boslowick	1
Rruth North	6	Falmouth Smithick	1
Newquay Central	5	Gunnislake and Calstock	1
Newquay Treviglas	5	Lanner and Stithians	1
St. Mawgan and Colan	5	Newquay Tretherras	1
St. Enoher	4	Peverell Ward	1
Truro Rannick	4	Rame Peninsular	1
Bodmin St. Leonard	3	Rruth South	1
Carharrack, Gwennap and St. Day	3	Roseland	1
Lelant and Carbis Bay	3	Salcombe & Thurlestone Ward	1
Mabe, Perranarworthal and St. Gluvias	3	St. Columb Major	1
St. Stephen-In-Branell	3	St. Dennis and Nanpean	1
Breage, Germoe and Sithney	2	St. Ives West	1
Bugle	2	St. Mewan	1
Camborne Treslothan	2	Torpoint West	1
	311		33
Total		344	

Table 31: Summary of other visit destinations provided by 353 interviewed local resident groups. The values represent the response count per visit destination and values in [] are the counts expressed as a % of the 627 responses totals.

Destination	Response total [as % of all responses]	Destination	Response total [as % of all responses]
Perranporth Beach	56 [9]	Gyllangvase Beach (Falmouth)	1 [0]
Beaches	48 [8]	Holywell Beach	1 [0]
Tehidy	36 [6]	Iddless	1 [0]
Idless Woods	34 [5]	Jericho Valley	1 [0]
St Agnes	23 [4]	Jubilee Wood	1 [0]
Crantock	21 [3]	Kings wood	1 [0]
Trelissick	21 [3]	Kynance	1 [0]
Perranporth	19 [3]	Local to house for short walks	1 [0]
Coast Path	18 [3]	Long Rock, Penzance	1 [0]
Idless	18 [3]	Lostwithel	1 [0]
Cubert Common	14 [2]	Mawgan Porth	1 [0]
Holywell Bay	12 [2]	Mevagissey	1 [0]
Crantock Beach	10 [2]	Mount Hawke	1 [0]
Gwithian	10 [2]	Mt Edgecombe	1 [0]
Gannel Estuary	9 [1]	Mylor	1 [0]
National Trust Sites	9 [1]	Newlyn East	1 [0]
Cornwall	8 [1]	Newlyn East Dunes	1 [0]
Hayle	7 [1]	Padstow	1 [0]
Laddock Woods	7 [1]	Park	1 [0]
Holywell	7 [1]	Penrise	1 [0]
Godrevy	6 [1]	Penrose Walk, Helston	1 [0]
Goonhavern	6 [1]	Penryn	1 [0]
Porthtowan	6 [1]	Poldice Valley	1 [0]
Cardinham	5 [1]	Porth Beach	1 [0]
Loee Bar	5 [1]	Porth Island	1 [0]
Trellisick	5 [1]	Porthleven	1 [0]
Cliffs St Agnes	4 [1]	Portreath	1 [0]
Cligga	4 [1]	PROW around Rose	1 [0]
Lanhydrock	4 [1]	Rame	1 [0]
Newlyn East Downs	4 [1]	Road walking	1 [0]
Newquay	4 [1]	Rose	1 [0]
Pentire	4 [1]	South West Coast Path	1 [0]
Wheal Busy	4 [1]	St Clements	1 [0]
Woods	4 [1]	St Erth	1 [0]
Bodmin	3 [0]	St Ives	1 [0]
Falmouth	3 [0]	Stithians	1 [0]
Lizard	3 [0]	The Headland	1 [0]
Mithian	3 [0]	Towan woods	1 [0]
Newquay Beaches	3 [0]	Trevaunance	1 [0]
Par Beach	3 [0]	Trewithel	1 [0]
Polly Joke	3 [0]	Tucking Mill	1 [0]
Roseland	3 [0]	Venton Gimps	1 [0]
Sennen	3 [0]	Viaduct woods in Truro	1 [0]
Tresillian	3 [0]	W. Pentire	1 [0]
Truro	3 [0]	West Cornwall	1 [0]
Carbis Bay	2 [0]	Wheal Francis	1 [0]
Chapel Porth	2 [0]	Bissoe	1 [0]
Clay trails	2 [0]	All over	1 [0]
Devoran lanes	2 [0]	Beach in winter	1 [0]
Football pitch p'porth	2 [0]	Beacon Head	1 [0]
Local Beaches	2 [0]	Bishops Wood	1 [0]
Pendower Beach	2 [0]	Bissoe Cycle Path	1 [0]
Penzance	2 [0]	Boscowan Park	1 [0]

Perrancombe	2 [0]	Cycle Trails	1 [0]
Perranwell	2 [0]	Devoran Cycle Track	1 [0]
Roundwood Quay	2 [0]	Dog friendly locations	1 [0]
Seven bridges	2 [0]	Dunes	1 [0]
Trevellas	2 [0]	Falmouth Area	1 [0]
Unity Woods	2 [0]	Gos Moor	1 [0]
Wheal Charlotte	2 [0]	Lanes around house	1 [0]
Wheal Coates	2 [0]	Lanner	1 [0]
Holywell	2 [0]	Local valleys	1 [0]
Park Shady	2 [0]	Looe	1 [0]
Praa Sands	2 [0]	Malpus	1 [0]
Beaches allowing dogs	1 [0]	Mining Trails	1 [0]
Bedruthan	1 [0]	Near home and dry	1 [0]
Boating lake	1 [0]	North Coast Path	1 [0]
Bolingey/Perranporth/Goonhavern	1 [0]	Pasmoor Powder	1 [0]
Breneygrenton	1 [0]	Porth	1 [0]
Bridle paths	1 [0]	Rock beach	1 [0]
Bridleways and lanes around Goonhavern	1 [0]	Rushy Green	1 [0]
Bugle Wheal Martyn	1 [0]	Sandy Mouth	1 [0]
Camel Trail	1 [0]	Shortlanesend	1 [0]
Casitla wood	1 [0]	St Clements	1 [0]
Cranford	1 [0]	St Ives beaches	1 [0]
Droskyn cliffs	1 [0]	St Newlyn East Downs	1 [0]
Eden project	1 [0]	St Stephans	1 [0]
Feock	1 [0]	The Lizard	1 [0]
Fistral	1 [0]	Towan cross	1 [0]
Five Acres	1 [0]	Trellissick	1 [0]
Fraddon	1 [0]	Trenance Lake	1 [0]
Gardens	1 [0]	Truro and Newham	1 [0]
Geo caches all over	1 [0]	Watergate Bay	1 [0]
Golf course (pporth)	1 [0]	Zennor	1 [0]
Total		627 [100]	

Table 32: Summary of comments provided by interviewed local groups when asked whether there were any additional comments they had about the site.

Comment	Count
More dog bins	14
Issue with dog poo	8
Great place	7
Don't change it	5
Adders put us off in summer	2
Bins need emptying regularly	2
Brilliant site	2
Lovely site	2
A fun and pleasant place, where I happily lose my bearings. A shame a minority leave litter.	1
Are the MOD going to open their land?	1
Beautiful day - why not open up MOD land?	1
Beautiful site and freedom it offers	1
Been Coming for 82 years!	1
Best place for dogs	1
Better management around campsite	1
Bikes are dangerous. We need places that dogs can be exercised without children so that owners can let dogs run without having to worry about children.	1
CC close beaches to dogs and this causes problems with dog fouling. Charge visitors £5 to clean up!	1
Clean site; got busier of the years	1
Cyclists should be banned. More dog warden visits required. Dog poo bins and warden visits needed in dunes.	1

Do not charge for parking	1
Dog bins not too visible	1
Dog does not like horses.	1
Dog warden would be good. Why can't we leave dog poo to decompose when it's not on paths.	1
Don't pick up after dogs - we find always quiet in Summer	1
Don't add any man-made structures, and prevent scramble (motorbike) riding	1
Don't allow more development, and encourage people to pick up dog waste	1
Don't bring in lots of rules please	1
don't charge for parking	1
Don't restrict use	1
free parking	1
Good for finding Pokemons	1
"Good views and openness.	
Variation in going. Scenery and water"	1
Great for easy walking. Lovely place.	1
Great place and close to home	1
Great place and social dog walking location	1
Great site for dogs	1
Great site for walking/riding and mainly unrestrictive	1
horses have destroyed some of the site over winter - the new track has been worn down. Too many professional dog walkers.	1
Ideal for dog walking. Beautiful and lots of variety of routes - even when it is busy you can avoid others if you want to.	1
It always looks different, in a good way	1
It looks great!	1
It's a lovely place to walk the dog	1
Just enjoy it. Hope council DON'T start charging for parking.	1
Keep public access to the site; and somehow stop people leaving dog waste	1
leave it as is. More consideration from dog owners (dog bags)	1
Leave it as it is! Perfect as it is!	1
Leave it as it is; dog friendly, free parking & totally natural	1
Leave it unspoilt	1
Like site as it is. Improved land management needed to prevent site being overgrown in longer term (eg. Increase in gauze already noticed).	1
"Like the freedom	
/ lack of control on the site."	1
Love how wild it is. Would not like it to become touristy, refreshments, toilets etc	1
lovely rambling open landscape, great for giving dogs a good walk	1
lovely the way it is	1
Lovely unspoilt site, dog bags are an issue, warden presence would be good	1
lovely walking and good parking good idea to close off part for wildlife	1
MOD site should become part of these dunes rather than be developed	1
More dog bins and warden needed	1
More dog bins, lots of professional dog walkers	1
More interpretation of features	1
most dog walkers are thoughtful about mess	1
Need to walk several times a day due to operation	1
needs preserving. Bicycles should be banned (eroding soil)	1
nice local place for a walk	1
Nice Natural Free and the nature	1
Other comments	1
Parking charges would be problem for locals	1
Parking has been reduced with white posts	1
Parking is difficult	1
Paved parking spaces	1
People who leave dog fowl should be fined	1
Please DON'T charge for parking	1
Problems of people leaving dog poo bags. No houses should be developed on the site!	1
Quiet and isolated	1

Really beautiful site	1
Red and blue paint marking dog poo	1
Scramblers on Wheal Busy need stopping	1
Surfers stay in car park too long	1
The MoD site could be used for dog walking	1
Toilet would be good. More dog wardens needed. Need to be careful not to overdevelop surrounding areas as will impact on site.	1
Very nice space, with good access to coastal path	1
Visit daily in Winter	1
Warden is never present. We had to trim back the brambles at the entrance. It would be good to control the number of dogs per person - stop professional dog walkers with 7 or more dogs coming from Truro - they cannot pick up all the poo. Enforce the article 4 and stop camping in laybys. Reinstate the white marker stones to the church. We are visiting our ancestors.	1
Water for dogs, good car park	1
we enjoy it very much	1
Keep it as it is, and maintain its beauty; Issue with dog poo	1
Issue with dog poo! Disturbance to wildlife!	1
Issue with dog poo, a rain shelter would be nice	1
Total	121