

A Needs Assessment relating to the Provision of Natural Greenspace in areas with Low Levels of Physical Activity



Report for Gravesham Borough Council

20 May 2016

Report to:
Kent Nature Partnership
Health & Nature Subgroup

**A Needs Assessment relating to the Provision of Natural Greenspace in areas
with Low Levels of Physical Activity**

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1. Introduction

This report is one in a series regarding a needs assessment of natural greenspace provision in areas of Kent where the population is physically inactive. It presents the results for Gravesham. The methodology is reported separately. The background to the study and the results for the whole of Kent are covered in the Main Report.

This study set out to establish the proximity, accessibility and naturalness of greenspace in areas of Kent where the population is characterised by low levels of physical activity. Subsequently, this assessment was used to prioritise areas for future action and investment, based on levels of population deprivation, size and need.

Throughout the report 'accessibility to greenspace' (including 'access of greenspace') refers to a site being accessible via some form of public right of way. However, this does not necessarily mean that the site is accessible to all sectors of society (e.g. individuals with a physical disability); accounting for the quality of the access route was beyond the scope of this project.

Greenspace is defined as '*places where human control and activities are not intensive so that a feeling of naturalness is allowed to predominate*' (as described by Natural England¹). Greenspace includes '*all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity*'².

Physical activity is defined on the basis of '*body movement that expends energy and raises the heart rate*'³.

The specific objectives for the Kent-wide project were to:

1. Produce a needs assessment that identified accessible greenspace within the Lower Super Output Areas (LSOAs) of Kent, particularly those with the highest levels of deprivation and where a high proportion of the population are physically inactive. The methods used were to be transparent and repeatable, thus

¹ Natural England (2010) '*Nature Nearby*' *Accessible Natural Greenspace Guidance*. <http://webarchive.nationalarchives.gov.uk/20160323000001/http://publications.naturalengland.org.uk/publication/40004>. Accessed 24/3/16.

² ODPM (2002) *Planning Policy Guidance 17: Planning for open space, sport and recreation*. HMSO

³ Public Health England (2014) *Everybody active, every day: An evidence-based approach to physical activity*.

facilitating future updates for Kent or application of the same approach in different counties.

2. Stratify and prioritise LSOAs where future action should be taken to improve provision of greenspace or increase use of existing greenspace in order to improve population health by promoting increased outdoor physical activity and engagement with the natural environment.

2. Method summary

A more detailed description of the methodology can be found in the dedicated Methodology report, as well as the Main Report for Kent. An outline of the methods used is provided here to assist in data interpretation.

The study used four types of spatial data for Kent covering boundaries, access routes, greenspace (Figure 1) and population. Interpretation of a 'feeling of naturalness' is guided by a four stage rating as a proxy for measuring naturalness⁴ (Box 1). This guidance was used to assign a level of naturalness to each area of greenspace.

Box 1: Naturalness levels according to Natural England (2010) 'Nature Nearby' Accessible Natural Greenspace Guidance.

Categories for 'feeling of naturalness'⁵:

Level 1

- Nature conservation areas, including Sites of Special Scientific Interest (SSSIs)
- Local sites, including local wildlife sites, Regionally Important Geological Sites (RIGS)
- Local Nature Reserves (LNRs)
- National Nature Reserves (NNRs)
- Woodland
- Remnant countryside (within urban and urban fringe areas)

Level 2

- Formal and informal open space
- Unimproved farmland
- Rivers and canals
- Unimproved grassland
- Disused/derelict land, mosaics of formal and informal areas of scrub etc
- Country parks
- Open access land

Level 3

- Allotments
- Church yards and cemeteries
- Formal recreation space

Level 4

- Improved farmland

⁴ Natural England (2010) 'Nature Nearby' Accessible Natural Greenspace Guidance.

⁵ Ibid

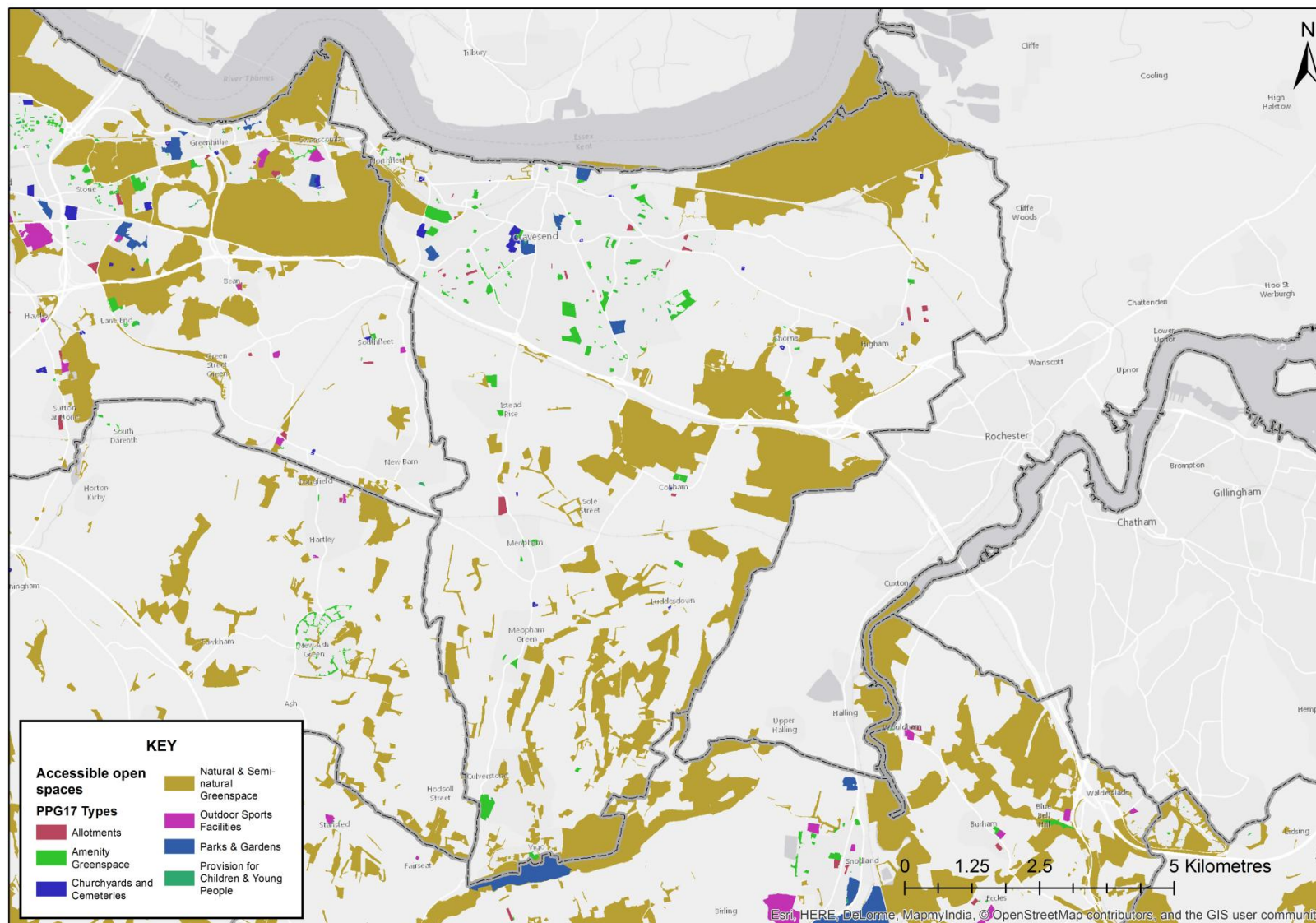


Figure 1: Greenspace in Gravesham mapped according to PPG17 typologies.

Two sets of accessibility standards were used to identify greenspace provision for the population at each postcode: Access to Natural Greenspace Standard⁶ (ANGSt) and Dover District Council accessibility standard⁷ (Box 2). The analyses were repeated for two combinations of site naturalness: (i) naturalness level 1, 2 & 3 and, (ii) naturalness level 1 (more 'natural' greenspaces). The analyses used distance along access routes (footpaths and pavements) from postcodes to greenspace entrance points.

Box 2: Accessibility standards used in this study

ANGSt:

- At least 1 site >2 ha within 300 m of where people live
- At least 1 site >20 ha within 2 km of where people live
- At least 1 site >100 ha within 5 km of where people live
- At least 1 site >500 ha within 10 km of where people live

DDC accessibility standard:

- At least 1 site >0.4 ha within 300 m of where people live in urban locations or at least 1 site >2 ha within 1 km of where people live in rural locations

Three methods of assessing greenspace provision were explored:

- Service area – which determines the potential distance travelled to access a greenspace via an entry point, following an access route (this method underpins most of the presented results).
- Buffer intersection – a Euclidean, or straight-line, method which assumes that greenspace is accessible to the public at any point around the edge of the site.
- Allocation – which uses Euclidean distance from postcode to greenspace entry points, rather than assuming that a site can be entered at any point along its edge.

Each method has its pros and cons due to complexity of execution and the assumptions made (see Methodology report). Following consultation with KCC, the service area method and results are presented as the core analyses.

⁶ Natural England (2010) '*Nature Nearby*' *Accessible Natural Greenspace Guidance*.

⁷ DDC Parks and Amenity Open Space Strategy 2013 & Land Allocations Local Plan 2015.

Data were analysed at the geographic resolution of Lower Super Output Area (LSOA) and subsequently categorised by Rural-Urban classification⁸, the Index of Multiple Deprivation (IMD)⁹, physical inactivity, district and Clinical Commissioning Group.

Physical activity is measured through Sport England's Active People Survey. The survey forms the benchmark for reporting on physical inactivity and shows that 28% of the Kent population is physically inactive¹⁰. However, these data are not available at LSOA level and so instead physical inactivity data from Experian Mosaic were used in the analyses.

In order to identify priority areas for action, LSOAs were divided into five groups based on the level of inactivity, with the highest priority given to the most physically inactive populations. Within each priority group, LSOAs were ordered by level of deprivation (most deprived LSOAs listed first) followed by the percentage population meeting accessibility standards (with the lowest percentage population meeting standards listed first).

Recommendations are made for improving access to greenspace based on the priorities.

⁸ <http://www.ons.gov.uk/ons/guide-method/geography/products/area-classifications/2011-rural-urban/index.html>.

⁹ <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>.

¹⁰ <http://www.phoutcomes.info/public-health-outcomes-framework#gid/1000042/pat/6/ati/102/page/0/par/E12000008/are/E10000016>

3. Results for Gravesham

The results presented here should be interpreted bearing in mind the following important methodological caveats:

- Accessible greenspace provision for LSOAs near the county border will be an underestimate, as sites over the Kent border¹¹ were not included in the analyses.
- The population defined as active might not be using greenspace for physical activity, using indoor facilities instead (e.g. gyms) or being outdoors but restricting their exercise to built-up areas (e.g. running along residential streets).
- It is likely that the service area method will underestimate greenspace provision in rural locations.
- It is likely that the service area method will increasingly underestimate accessible greenspace provision as ANGSt distances get larger, as access routes excluded roads, assuming that people would travel to a site on foot.
- The ANGSt and DCC standards, as investigated in this report, are met by the first applicable greenspace per postcode. Variation in physical activity could be due to the proximity/accessibility of multiple greenspace, which is not taken into account in these analyses.
- Many other social factors influence the attractiveness of a greenspace as a location for undertaking physical activity, such as people's perceptions of the area (e.g. due to the available facilities, litter, graffiti, fear of crime).

All reported results have been derived using the service area method, unless otherwise stated. Fewer postcodes meet accessibility standards using the service area method when compared to the buffer intersection (Gravesham Borough Council Report Appendix A) and allocation methods (Gravesham Borough Council Report Appendix B).

3.1 Populations meeting accessibility standards

Comparisons were made of the results obtained for populations meeting accessibility standards for naturalness level 1, 2 & 3 and naturalness level 1 greenspace (Table 1) using the service area method. These data can be compared with the Kent figures (Gravesham Borough Council Report Appendix C).

¹¹ In Essex, East Sussex, Surrey, Greater London and Medway.

Table 1: Percentage of population in Gravesham meeting accessibility standards.

Greenspace accessibility criteria	Naturalness levels 1, 2 & 3	Naturalness level 1
ANGSt		
At least 1 site >2 ha within 300 m	28% (Figure 2)	11%
At least 1 site >20 ha within 2 km	36% (Figure 3)	35%
At least 1 site >100 ha within 5 km	96% (Figure 4)	85%
At least 1 site >500 ha within 10 km	89% (Figure 5)	89%
DDC standard		
At least 1 site >0.4 ha within 300 m in urban areas or at least 1 site >2 ha within 1 km in rural areas	52% (Figures 6 & 7)	20%

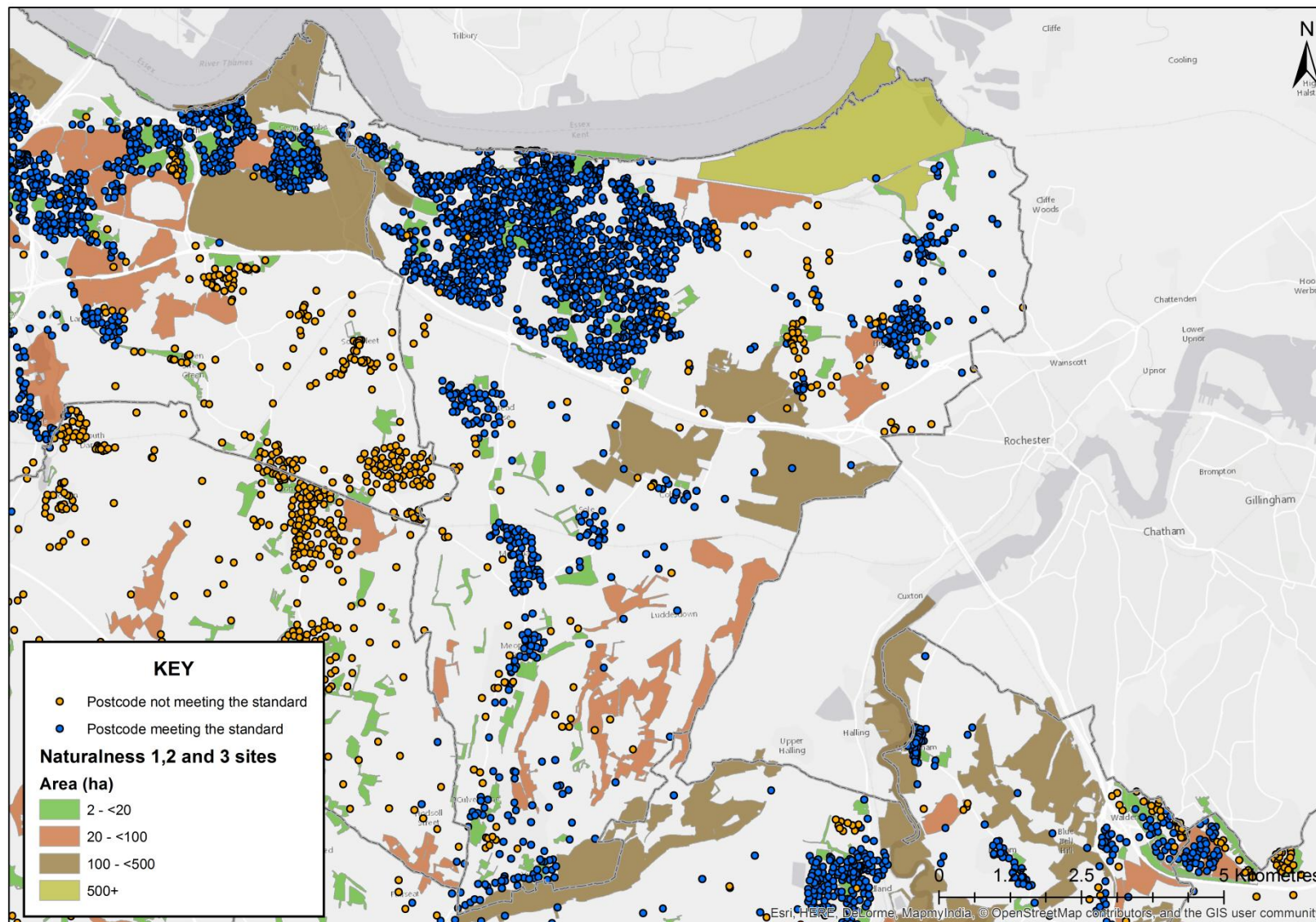


Figure 4: Gravesham postcodes meeting and not meeting ANGSt for naturalness level 1, 2 & 3 greenspace of at least 100 ha within 5 km.



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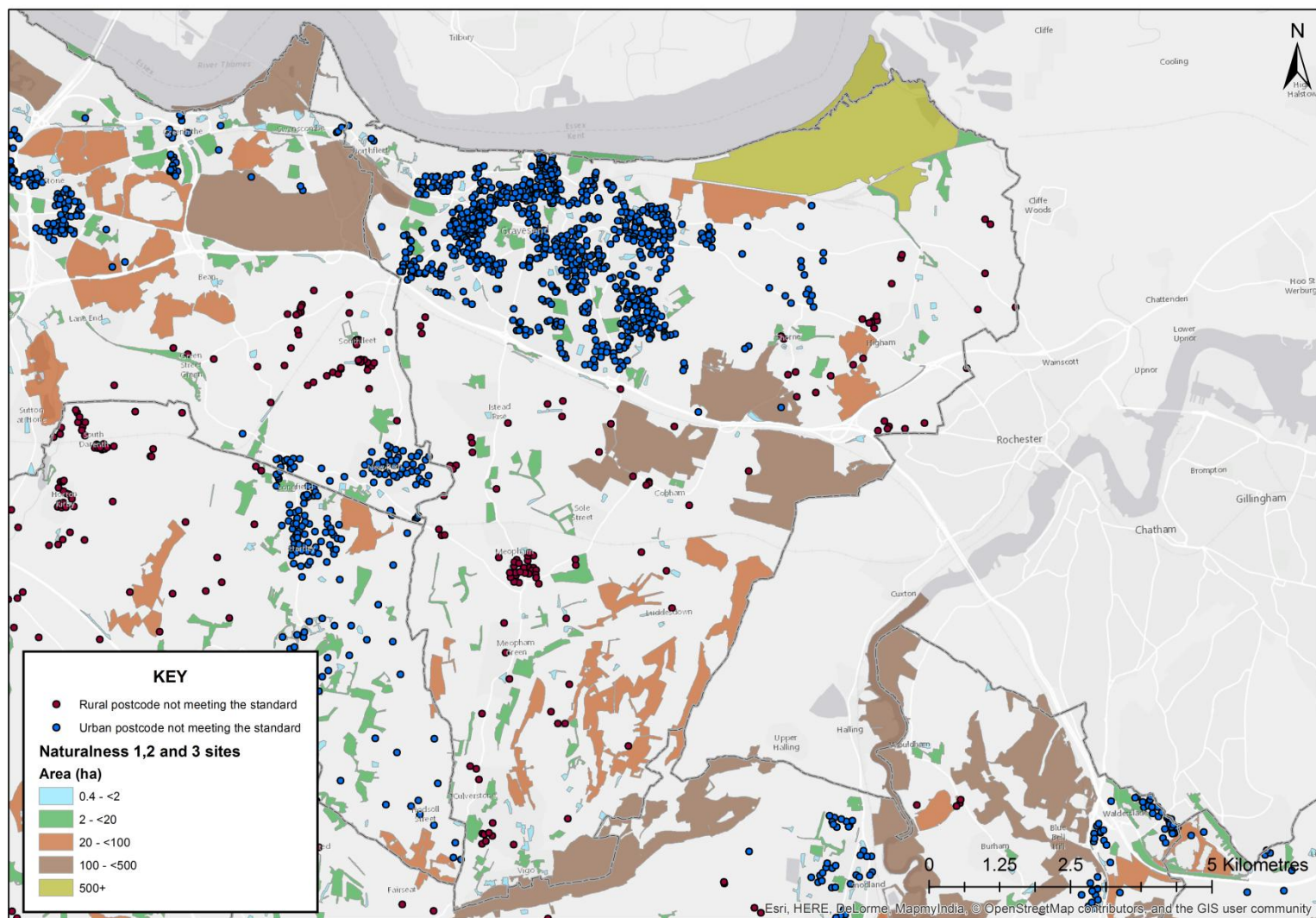


Figure 7: Gravesham postcodes not meeting the DDC standard for naturalness level 1, 2 & 3 greenspace of at least 0.4 ha within 300 m in urban areas or at least 2 ha within 1 km in rural areas.

3.2 Populations which are physically inactive

The Experian Mosaic data used in this study shows that 30% (based on 2013 population estimates) of the population across Gravesham are considered physically inactive.

4. Prioritisation of areas for action

LSOA populations have been grouped and prioritised according to the proportion that is physically inactive (Table 2 and Gravesham Borough Council Report Appendix D).

Table 2: Physically inactive priority groupings and reference to matrices for Gravesham.

Priority	Population grouping	Number of LSOAs	Matrix
Physically inactive priority 1	>80% population physically inactive	0	Matrix 1
Physically inactive priority 2	>60% to 80% of the population physically inactive	9	Matrix 2
Physically inactive priority 3	>40% to 60% of the population physically inactive	7	Matrix 3
Physically inactive priority 4	>20% to 40% of the population physically inactive	25	Matrix 4
Physically inactive priority 5	0% to 20% of the population physically inactive	23	Matrix 5

Measures have been proposed for increasing opportunities for physical activity in greenspace across Gravesham, associated with each priority (Table 3).

In addition, the results from the analyses and evidence from the literature point to some general actions which could be taken in Gravesham to improve provision/access to greenspace and encourage physical activity in greenspace:

- Evidence from the scientific literature has shown that people are more likely to visit natural greenspace in close proximity to where they live^{12,13,14}. We therefore propose that priority should be given to increasing accessible greenspace in LSOAs where less than 50% of the population was found to meet ANGSt for greenspace of at least 2 ha within 300 m of home.

¹² Carter, M. and P. Horwitz (2014). "Beyond proximity: the importance of green space useability to self-reported health." *Ecohealth* **11**(3): 322-332.

¹³ Dallimer, M., Davies, Z.G., Irvine, K.N., Maltby, L., Warren, P.H., Gaston, K.J. & Armsworth, P.R. (2014) What Personal and Environmental Factors Determine Frequency of Urban Greenspace Use? *International Journal of Environmental Research and Public Health*, **11**: 7977-7992.

¹⁴ Giles-Corti, B., Broomhall, M.H., Knuiaman, M., Collins, C., Douglas, K., Ng, K., Lange, A. & Donovan, R.J. (2005) Increasing walking: how important is distance to, attractiveness, and size of public open space? *American Journal of Preventative Medicine* **28**(2): 169–176

- Nearly half (48%) of the population did not meet the DDC accessibility standard (for naturalness level 1, 2 & 3 greenspace of at least 0.4 ha within 300 m of home in urban areas or 2 ha within 1 km in rural areas). In urban LSOAs, where less than 10% of the population met the DDC standard, creation of greenspace of at least 0.4 ha is recommended.
- The percentage of the population that is physically inactive was higher in urban areas across Kent compared to rural. Creation of new greenspace and/or increasing accessibility to existing greenspace in urban compared to rural areas.
- Analyses of data for Kent found a significant relationship was found between physical inactivity and the accessibility of naturalness level 1 greenspace of at least 2 ha within 300 m of where people live in urban areas. Again, creation of new greenspace and/or increasing accessibility to existing greenspace in urban LSOAs should be prioritised over rural LSOAs.
- In some LSOAs the percentage of the population meeting ANGSt for naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m of home was found to be much lower using the service area compared to the buffer intersection method. In these areas we suggest that, where possible, improvements are made to increase access routes to the existing available greenspace.
- In line with other studies we found that populations in Kent who are not active enough for good health are more likely to have higher levels of deprivation. Promoting physical activity outdoors in deprived areas where there is adequate provision of accessible greenspace is recommended.
- High levels of physical inactivity occur despite availability of accessible greenspace (see Matrix 1). In addition to encouraging physical activity in these areas, it is important to identify the barriers stopping people from using their local greenspace for physical activity.
- Some research suggests that people with an existing "orientation" towards nature are more likely to walk or travel to parks and greenspace¹⁵. Therefore, long-term approaches to increase people's interest in the natural environment should be considered, as a means of encouraging physical activity in greenspace.

¹⁵ Lin BB, Fuller RA, Bush R, Gaston KJ, Shanahan DF (2014) Opportunity or Orientation? Who Uses Urban Parks and Why. PLoS ONE 9(1): e87422. doi:10.1371/journal.pone.0087422

Table 3: Interpretation of the colour coding used in the matrices and proposed measures for increasing opportunities for physical activity in greenspace within 300 m of where people live (and the number of LSOAs in each category in Gravesham to which the interpretation and measures apply).

Naturalness 1, 2 & 3				Naturalness level 1		Interpretation	Primary proposed intervention	Secondary proposed intervention	Number of LSOAs				
Service area		Buffer intersection		Service area	Buffer intersection				Matrix				
ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha				1	2	3	4	5
0% to 10%	0% to 10%					Accessibility to greenspace extremely low 10% or less of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home <u>and</u> less than 10% meet the DDC accessibility standard (greenspace of at least 0.4 ha within 300 m walking distance in urban areas or 2 ha within 1 km in rural areas).	Create new accessible greenspace of at least 0.4 ha within urban LSOAs.	Encourage physical activity in greenspace.	0	0	0	1	1
0% to 10%	0% to 10%	>50%				Accessibility to greenspace extremely low but <u>greenspace present in vicinity</u> 10% or less of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home <u>and</u> less than 10% meet the DDC accessibility standard (greenspace of at least 0.4 ha within 300 m walking distance in urban areas or 2 ha within 1 km in rural areas), but over 50% are	Create new accessible greenspace of at least 0.4 ha within urban LSOAs and, if possible, improve access to existing	Encourage physical activity in greenspace.	0	0	0	1	0

Naturalness 1, 2 & 3				Naturalness level 1		Interpretation	Primary proposed intervention	Secondary proposed intervention	Number of LSOAs				
Service area		Buffer intersection		Service area	Buffer intersection				Matrix				
ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha				1	2	3	4	5
						within a 300 m buffer of such sites.	sites.						
0% to 10%						<u>Accessibility to greenspace very low</u> Less than 10% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home.	Create new accessible greenspace of at least 2 ha within LSOA.	Encourage physical activity in greenspace.	0	4	2	9	4
0% to 10%		>50%				<u>Accessibility to greenspace very low but greenspace present in vicinity</u> Less than 10% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home <u>but</u> more than 50% are within a 300 m buffer of such sites.	Create accessible greenspace of at least 2 ha within LSOA and/or, if possible, improve access to existing sites.	Encourage physical activity in greenspace.	0	1	0	0	1
>10% to 50%						<u>Accessibility to greenspace low</u> Between >10% and 50% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home (service area method).	Create new accessible greenspace of at least 2 ha within LSOA.	Encourage physical activity in greenspace.	0	1	2	4	3

Naturalness 1, 2 & 3				Naturalness level 1		Interpretation	Primary proposed intervention	Secondary proposed intervention	Number of LSOAs				
Service area		Buffer intersection		Service area	Buffer intersection				Matrix				
ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha				1	2	3	4	5
>10% to 50%		>50%				<u>Accessibility to greenspace low but greenspace present in vicinity</u> Between >10% and 50% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home (service area method) <u>but</u> more than 50% are within a 300 m buffer of such sites.	Create accessible greenspace of at least 2 ha within LSOA and/or, if possible, improve access to existing sites.	Encourage physical activity in greenspace.	0	0	1	6	9
>50% to 90%						<u>Accessibility to greenspace relatively high</u> Between >50% and 90% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home.	Encourage physical activity in greenspace.	Create more accessible greenspace of at least 2 ha within LSOA.	0	3	2	4	4
>90%						<u>Accessibility to greenspace very high</u> Over 90% of the population has a naturalness level 1, 2 & 3 greenspace of at least 2 ha within 300 m walking distance from home.	Encourage physical activity in greenspace.		0	0	0	0	1

Appendix A: Gravesham buffer intersection results

Comparisons were made of the results obtained for populations meeting accessibility standards for naturalness level 1, 2 & 3 and naturalness level 1 greenspace (Table A1).

Table A1: Percentage of population in Gravesham meeting accessibility standards using the buffer intersection method.

Greenspace accessibility criteria	Naturalness levels 1, 2 & 3	Naturalness level 1
ANGSt		
At least 1 site >2 ha within 300 m	54%	22%
At least 1 site >20 ha within 2 km	84%	83%
At least 1 site >100 ha within 5 km	100%	97%
At least 1 site >500 ha within 10 km	100%	100%
DDC standard		
At least 1 site >0.4 ha within 300 m in urban areas or at least 1 site >2 ha within 1 km in rural areas	87%	35%

Appendix B: Gravesham allocation results

Comparisons were made of the results obtained for populations meeting ANGSt for naturalness level 1, 2 & 3 and naturalness level 1 greenspace (Table B2).

Table B2: Percentage of population in Gravesham meeting accessibility standards using the allocation method.

Greenspace accessibility criteria	Naturalness levels 1, 2 & 3	Naturalness level 1
ANGSt		
At least 1 site >2 ha within 300 m	48%	20%
At least 1 site >20 ha within 2 km	75%	75%
At least 1 site >100 ha within 5 km	100%	97%
At least 1 site >500 ha within 10 km	100%	100%

Appendix C: Population across Kent meeting accessibility standards

Kent data using the service area method (Table C1) provided for comparison with Gravesham data.

Table C1: Percentage of population in Kent meeting accessibility standards using the service area method.

Greenspace accessibility criteria	Naturalness levels 1, 2 & 3	Naturalness level 1
ANGSt		
At least 1 site >2 ha within 300 m	34% (Figures 9 & 10)	15%
At least 1 site >20 ha within 2 km	72% (Figures 11 & 12)	64%
At least 1 site >100 ha within 5 km	85% (Figures 13 & 14)	79%
At least 1 site >500 ha within 10 km	46% (Figures 15 & 16)	44%
DDC standard		
At least 1 site >0.4 ha within 300 m in urban areas or at least 1 site >2 ha within 1 km in rural areas	56% (Figures 17 & 18)	27%

Appendix D: Gravesham prioritisation matrices 1, 2, 3, 4 & 5

Gravesham Matrix 1: More than 80% of the population with prevalence for physical inactivity – 0 LSOAs.

Gravesham Matrix 2: More than 60% and less than or equal to 80% of the population with prevalence for physical inactivity – 9 LSOAs.

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01024278	Gravesham 001C	Northfleet North	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	72%	92%	99%	100%	67%	99%
E01024310	Gravesham 007B	Westcourt	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	0%	22%	6%	57%	0%	2%
E01024264	Gravesham 009A	Coldharbour	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	0%	39%	4%	86%	0%	0%
E01024309	Gravesham 008D	Westcourt	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	0%	83%	0%	100%	0%	0%
E01024307	Gravesham 011E	Singlewell	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	83%	83%	99%	99%	73%	89%
E01024290	Gravesham 002C	Pelham	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	30%	30%	42%	42%	30%	33%
E01024304	Gravesham 011B	Singlewell	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	8%	36%	62%	100%	8%	62%
E01024292	Gravesham 005C	Pelham	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	6	61%	63%	94%	94%	0%	0%
E01024288	Gravesham 006E	Painters Ash	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	7	0%	11%	31%	75%	0%	0%

Gravesham Matrix 3: More than 40% and less than or equal to 60% of the population with prevalence for physical inactivity – 7 LSOAs.

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01024308	Gravesham 007A	Westcourt	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	29%	82%	47%	100%	0%	0%
E01024306	Gravesham 011D	Singlewell	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	74%	74%	100	100%	0%	18%
E01024294	Gravesham 003D	Riverside	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	44%	35%	89%	99%	0%	25%
E01024315	Gravesham 007E	Whitehill	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	63%	63%	77%	89%	0%	0%
E01024263	Gravesham 004B	Coldharbour	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	37%	37%	46%	64%	0%	0%
E01024287	Gravesham 006D	Painters Ash	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	5	0%	61%	2%	100%	0%	0%
E01024285	Gravesham 006C	Painters Ash	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	6	0%	87%	0%	100%	0%	0%

Gravesham Matrix 4: More than 20% and less than or equal to 40% of the population with prevalence for physical inactivity – 25 LSOAs.

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01024257	Gravesham 002A	Central	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	6%	9%	58%	58%	0%	0%
E01024305	Gravesham 011C	Singlewell	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	32%	41%	73%	100%	0%	2%
E01024295	Gravesham 002E	Riverside	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	1	72%	72%	92%	92%	0%	0%
E01024311	Gravesham 007C	Westcourt	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	0%	24%	0%	97%	0%	0%
E01024291	Gravesham 002D	Pelham	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	17%	17%	53%	53%	0%	9%
E01024280	Gravesham 006A	Northfleet South	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	50%	50%	100%	100%	0%	3%
E01024277	Gravesham 001B	Northfleet North	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	56%	64%	79%	91%	51%	77%
E01024312	Gravesham 008E	Westcourt	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	0%	7%	0%	78%	0%	0%
E01024293	Gravesham 003C	Riverside	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	19%	20%	49%	100%	0%	0%

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01024258	Gravesham 003A	Central	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	27%	33%	50%	76%	0%	0%
E01024283	Gravesham 004D	Northfleet South	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	14%	22%	33%	80%	0%	0%
E01024319	Gravesham 009D	Woodlands	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	18%	36%	71%	90%	0%	0%
E01024281	Gravesham 006B	Northfleet South	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	54%	54%	83%	86%	0%	0%
E01024314	Gravesham 007D	Whitehill	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	5	0%	26%	9%	100%	0%	0%
E01024303	Gravesham 011A	Singlewell	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	5	0%	70%	39%	100%	0%	9%
E01024266	Gravesham 010B	Higham	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	6	17%	100%	53%	100%	17%	53%
E01024313	Gravesham 005D	Whitehill	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	7	0%	30%	0%	79%	0%	0%
E01024267	Gravesham 010C	Higham	Dartford, Gravesham & Swanley CCG	Gravesham	Rural village and dispersed	7	38%	95%	44%	100%	38%	44%
E01024317	Gravesham 005E	Woodlands	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	7	69%	69%	100%	100%	0%	0%
E01024286	Gravesham 009B	Painters Ash	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	8	0%	82%	0%	100%	0%	0%

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01024261	Gravesham 003B	Chalk	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	8	7%	48%	44%	80%	7%	37%
E01024300	Gravesham 010D	Shorne, Cobham and Luddesdown	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	9	0%	28%	27%	64%	0%	24%
E01024298	Gravesham 008B	Riverview	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	9	3%	14%	32%	54%	0%	13%
E01024268	Gravesham 012A	Istead Rise	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	9	9%	92%	34%	100%	9%	29%
E01024269	Gravesham 012B	Istead Rise	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	9	16%	98%	71%	100%	0%	0%

Gravesham Matrix 5: 0% to 20% of the population with prevalence for physical inactivity – 23 LSOAs.

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
E01032799	Gravesham 002F	Pelham	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	2	48%	75%	92%	92%	48%	92%
E01024279	Gravesham 001D	Northfleet North	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	3	1%	85%	4%	96%	1%	4%
E01024284	Gravesham 004E	Northfleet South	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	26%	26%	58%	58%	0%	0%
E01024296	Gravesham 003E	Riverside	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	45%	53%	76%	78%	0%	0%
E01024262	Gravesham 004A	Coldharbour	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	59%	59%	69%	71%	0%	0%
E01032800	Gravesham 002G	Pelham	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	4	66%	81%	80%	87%	66%	80%
E01024282	Gravesham 004C	Northfleet South	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	5	0%	3%	22%	54%	0%	0%
E01024276	Gravesham 001A	Northfleet North	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	6	10%	25%	34%	78%	0%	14%
E01024301	Gravesham 010E	Shorne, Cobham and Luddesdown	Dartford, Gravesham & Swanley CCG	Gravesham	Rural village and dispersed	6	49%	65%	94%	100%	36%	88%
E01024260	Gravesham	Central	Dartford, Gravesham	Gravesham	Urban major	6	53%	65%	67%	93%	0%	0%

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
	005B		& Swanley CCG		conurbation							
E01024316	Gravesham 009C	Woodlands	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	7	21%	40%	82%	82%	0%	15%
E01024318	Gravesham 005F	Woodlands	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	7	28%	48%	47%	79%	0%	0%
E01024302	Gravesham 013D	Shorne, Cobham and Luddesdown	Dartford, Gravesham & Swanley CCG	Gravesham	Rural village and dispersed	7	40%	93%	71%	100%	29%	62%
E01024273	Gravesham 013A	Meopham South and Vigo	Dartford, Gravesham & Swanley CCG	Gravesham	Rural village and dispersed	7	47%	79%	92%	100%	46%	91%
E01024274	Gravesham 013B	Meopham South and Vigo	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	7	64%	79%	100%	100%	58%	100%
E01024259	Gravesham 005A	Central	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	8	0%	26%	0%	100%	0%	0%
E01024271	Gravesham 012D	Meopham North	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	8	13%	66%	43%	100%	13%	43%
E01024297	Gravesham 008A	Riverview	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	9	7%	13%	57%	85%	7%	57%
E01024299	Gravesham 008C	Riverview	Dartford, Gravesham & Swanley CCG	Gravesham	Urban major conurbation	9	12%	12%	80%	89%	0%	0%
E01024265	Gravesham 010A	Higham	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	9	30%	59%	64%	100%	30%	64%
E01024275	Gravesham	Meopham South	Dartford, Gravesham	Gravesham	Rural town and	9	100%	100%	100%	100%	73%	100%

LSOA reference	Kent LSOA name	Ward name	CCG	Local Authority	Rural-Urban	IMD decile	Naturalness 1, 2 & 3				Naturalness level 1	
							Service area		Buffer intersection		Service area	Buffer intersection
							ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	DDC: % population within urban-rural standard	ANGSt: % population within 300 m of >2 ha	ANGSt: % population within 300 m of >2 ha
	013C	and Vigo	& Swanley CCG		fringe							
E01024270	Gravesham 012C	Meopham North	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	10	4%	79%	26%	100%	0%	2%
E01024272	Gravesham 012E	Meopham North	Dartford, Gravesham & Swanley CCG	Gravesham	Rural town and fringe	10	27%	63%	45%	100%	27%	39%