

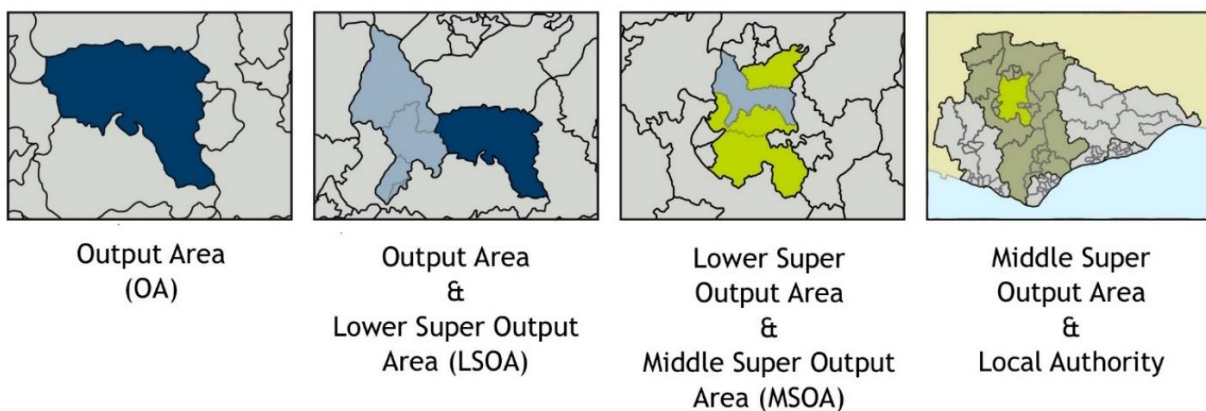
A Guide to Census Geographies

Output Areas: the statistical building blocks that make up the census

In order to make census data easier to analyse, the Office for National Statistics (ONS) has built a series of boundaries that they use to divide the country up into bite-size pieces that they call ‘Output Areas’. These are the lowest geographical level at which census estimates are provided, and typically contain data for around 300 people.

This guide will focus on how these geographies apply within East Sussex, how they relate to one another and how they have changed between 2011 and 2021. Although the ONS publish other geographical units such as workplace zones, these are not covered in this document. More technical guidance on national census geography and information about the other geographical units can be found at the following address: <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/census/census.htm>

Output Areas and their relationship to Lower and Middle Layer Super Output Areas and the county as a whole



Source: East Sussex County Council, ArcGIS/ESRI

The mosaic of Output Areas (OAs) might be thought of as a statistical jigsaw puzzle that when pieced together, provide a comprehensive view of the overall population. These Output Areas were built up from clusters of adjacent unit postcodes; the intention being to split the nation into smaller blocks, each containing a similar number of people. Nationwide, each OA has a minimum of 40 households and 100 residents and a maximum of 250 households and a maximum population size of 625 people. The total number of 2021 OAs in East Sussex is 1,818.

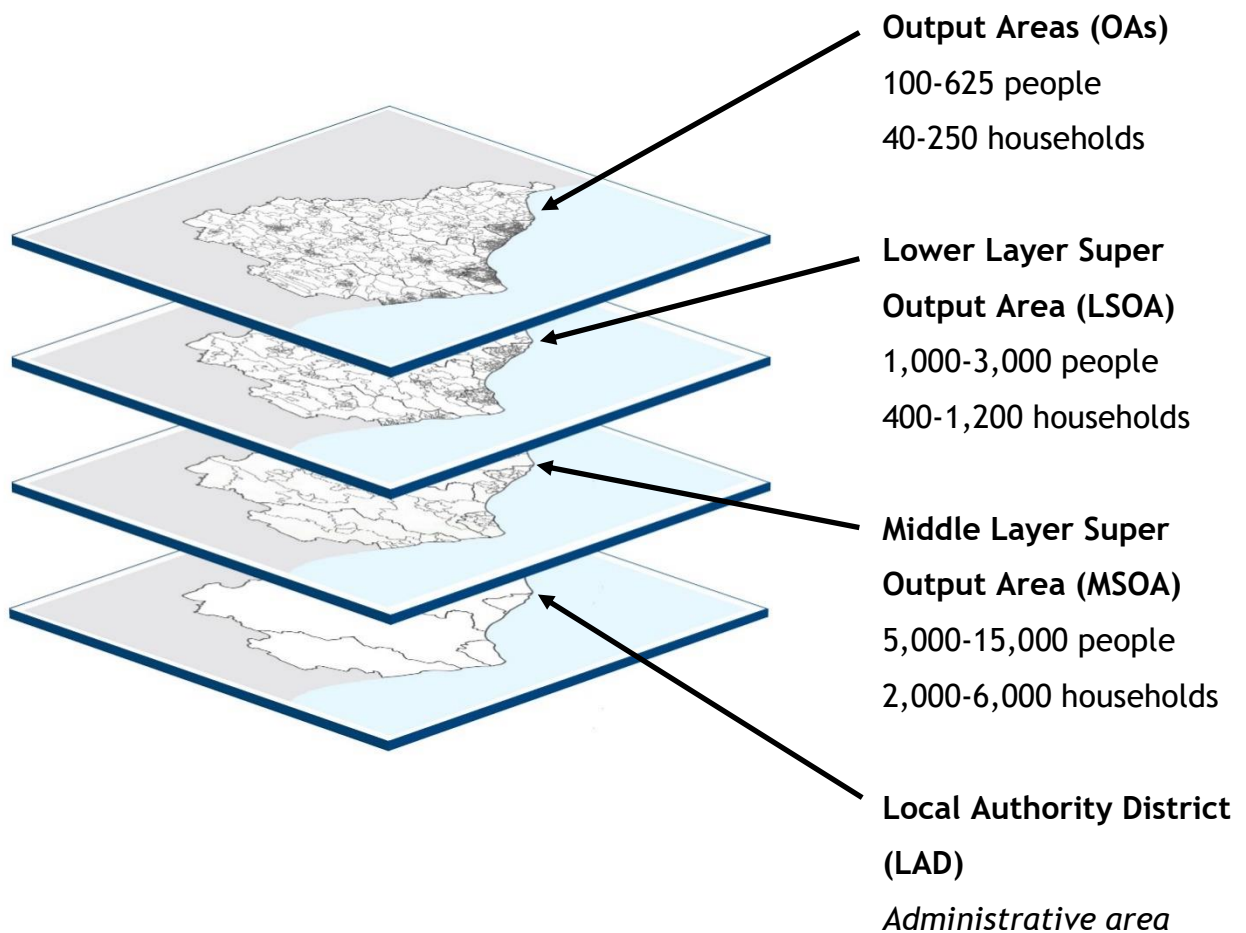
Super Output Areas were designed to improve the reporting of small area statistics and are built up from small groups of Output Areas. They were originally planned to come in three different aggregation levels - Lower, Middle and Upper, although the latter has thus far only been used in Wales. Lower Layer Super Output Areas (LSOAs) typically contain 4 to 6 OAs and have a population of 1,000 to 3,000 people, while Middle Layer Super Output Areas typically have a population of between 5,000 and 15,000. There are currently 332 LSOAs in East Sussex and 69 MSOAs.

Local Authority	Number of Households ¹ (2021 census)	Number of Postcodes (Nov 2021)	Number of OAs (2021)	Number of LSOAs (2021)	Number of MSOAs (2021)
Eastbourne	45,600	4,019	358	60	13
Hastings	40,500	3,124	311	53	11
Lewes	43,700	4,977	330	62	13
Rother	42,100	4,213	317	58	11
Wealden	68,300	8,057	502	99	21
EAST SUSSEX	240,100	24,390	1,818	332	69

Source: ONS

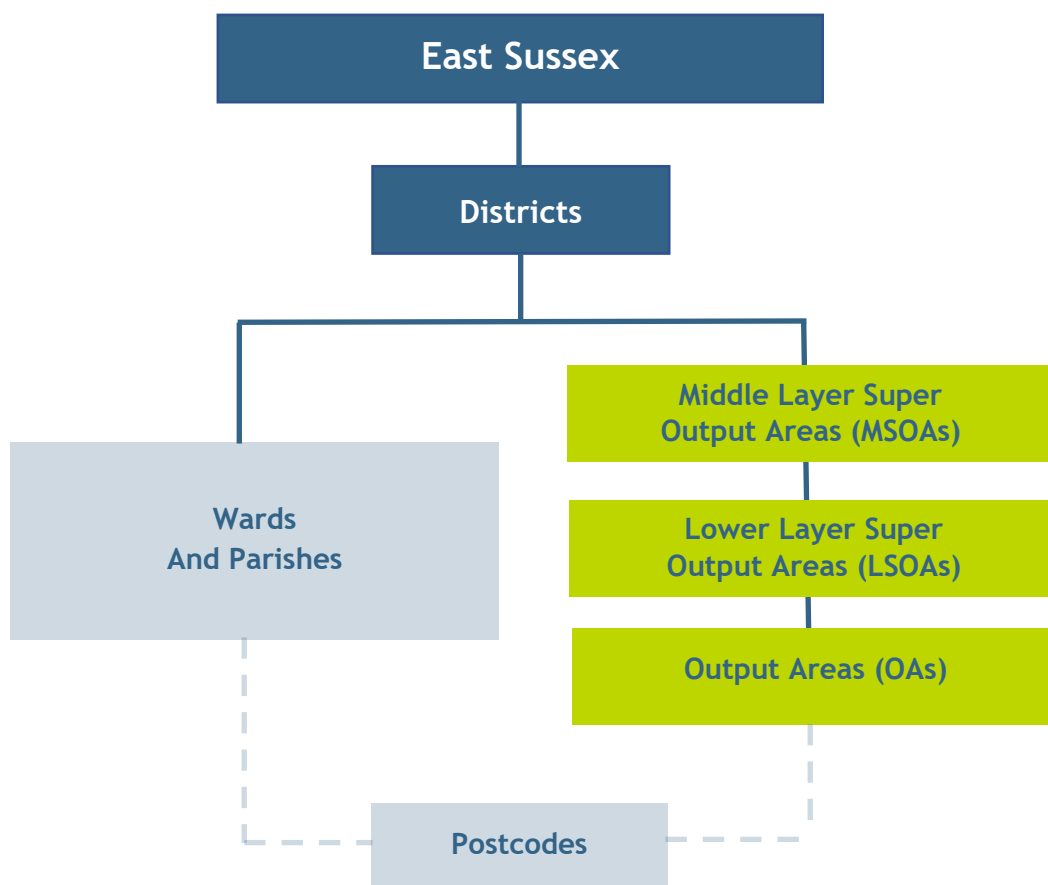
¹ Numbers have been rounded to nearest 100. These figures will be updated when unrounded unit-level census data is released by the ONS.

The statistical hierarchy of Census geographies and the minimum and maximum number of people and households contained within each geographical unit.



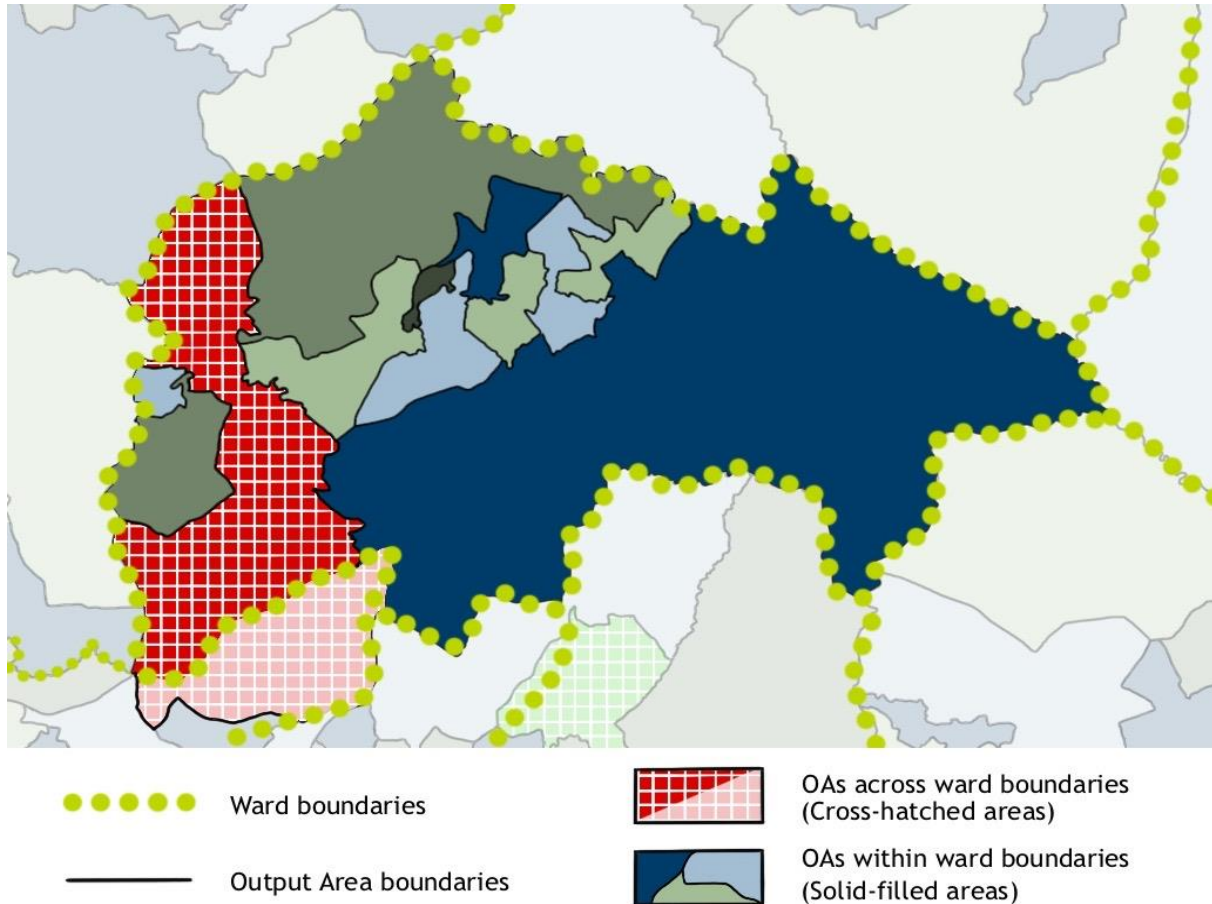
Source: East Sussex County Council, ONS

The diagram below shows how the statistical Census Output Area geographies apply to the administrative county of East Sussex. Administrative geography is all about the hierarchy of areas relating to national and local government in the UK. Statistical geography, on the other hand, is the study and practice of collecting, analysing and presenting data that has a geographic or a real dimension, such as census or demographic data.



Unfortunately, current census output areas do not perfectly align with 2022 administrative ward boundaries, so a best-fit method is used. Output Areas are allocated to the 2022 wards based on how the population is distributed within an OA, with each OA allocated to the ward where the majority of its population resides.

Example: Output Areas within Mayfield & Five Ashes ward



Source: East Sussex County Council, ArcGIS/ESRI

The Output Area E00170897 (shown in the diagram above using a red/pink and white cross-hatch pattern) straddles two wards: Mayfield & Five Ashes to the north, and Framfield & Cross-in-Hand to the south. The red and white pattern shows the section of E00170897 situated within Mayfield & Five Ashes, and the paler pink and white pattern represents the part located within Framfield & Cross-in-Hand Ward. The ward boundary is represented by a green dotted line.

Referring to the ONS ‘OA to Ward’ lookup table, we can see that in this instance, E00170897 fits best into the Mayfield & Five Ashes Ward. (Full details of how the ONS applies best-fit rules when matching output areas to wards can be found at: <https://tinyurl.com/mry6s9ej>).

Understanding GSS Codes

All of the census data geographies are represented by 9-character GSS codes, where GSS refers to the Government Statistical Service to which the ONS belongs. The first three characters indicate the level of geography and the six digits following define the individual unit. For example, the county of East Sussex is coded as E10000011, Eastbourne is E07000061, Hastings is E07000062, Lewes is E07000063, Rother is E07000064 and Wealden is E07000065.

The meaning of some common three character prefixes is as follows,:

Prefix	Geography	Example
E00	Output Area (OA)	E00106132 (OA in Eastbourne)
E01	Lower Layer Super Output Area (LSOA)	E01020911 (LSOA Eastbourne 010B)
E02	Middle Layer Super Output Area (MSOA)	E02004365 (MSOA Eastbourne 010)
E04	Civil Parish	E04003796 (Battle Parish)
E05	Ward or Electoral Division	E05011635 (Forest Row)
E06	Unitary Authority	E06000043 (Brighton and Hove)
E07	Non-Metropolitan District (two-tier)	E07000062 (Hastings)
E08	Metropolitan Borough	E08000025 (Birmingham)
E09	London Borough	E09000008 (Camden)
E10	County	E10000011 (East Sussex)
E11	Metropolitan County	E11000001 (Greater Manchester)
E12	English Region	E12000008 (South East Region)

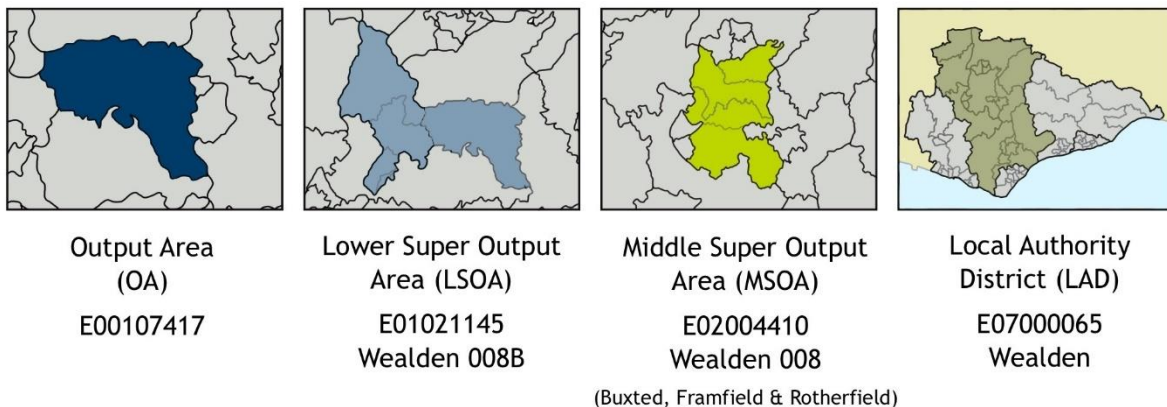
Source: ONS

Note: Entries in grey are not relevant to East Sussex, and are provided for general information purposes only

LSOAs (prefix E01~) and MSOAs (prefix E02~) also have schematic names relating to the local or unitary authority where they are located plus three digits. For example, the MSOA with code E02004410 may be referred to as ‘Wealden 008’. LSOAs use the name of their parent MSOA followed by a letter. For example, E01021145 - which nests into Wealden 008 - may be referred to as Wealden 008B, where the letter B differentiates the LSOA from the other 3 LSOAs nested within the Wealden 008 (E02004410) MSOA, namely Wealden 008A, Wealden 008C and Wealden 008D.

Unlike LSOAs and MSOAs, OAs (prefix E00~) do not have names, and the codes associated with them do not provide any information about which of the larger geographical units they are nested within, or even which district they are located in. However, when census data is obtained by OA, each area record will also have a reference to its parent LSOA and MSOA.

Example: ONS Codes and Names for OA E00107417 and its related higher-level geographies



Source: East Sussex County Council, ONS, ArcGIS/ESRI

In addition to the official codes and schematic names mentioned above, the House of Commons Library has also come up with a set of recognisable names for MSOAs based on the towns, villages and neighbourhoods that they cover. For example, E02004374 or Hastings 007 has been given the more user-friendly name of 'Old Hastings', which provides us with a much better understanding of which area it covers. Such names aren't intended to supplant any names that might already be used locally and the House of Commons Library is keen to point out that they aren't 'official' names for MSOAs, and as such, should not be confused with Ward names. Rather, they are intended to provide those using MSOA data with a resource to make that data easier to interpret and present. A list of these unofficial names is given in Appendix C.

Changes to census geographies between 2011 and 2021

The ONS has made several changes to the statistical geographic areas in East Sussex for 2021. These changes are summarised in the table below.

Geographical Unit	2011 Census	2021 Census	Net Change
Output Areas (OAs)	1,776	1,818	+42
<i>Eastbourne OAs</i>	354	358	+4
<i>Hastings OAs</i>	309	311	+2
<i>Lewes OAs</i>	322	330	+8
<i>Rother OAs</i>	315	317	+2
<i>Wealden OAs</i>	476	502	+26
Lower Layer Super Output Areas (LSOAs)	329	332	+3
<i>Eastbourne LSOAs</i>	61	60	-1
<i>Hastings LSOAs</i>	53	53	0
<i>Lewes LSOAs</i>	62	62	0
<i>Rother LSOAs</i>	58	58	0
<i>Wealden LSOAs</i>	95	99	+4
Middle Layer Super Output Areas (MSOAs)	69	69	No Change

Source: ONS

The majority of these changes involve splitting 2011 Output Areas into smaller units to account for increasing numbers of households and residents. Additionally, two OAs in Rother were merged to form one slightly larger output area, as were another two OAs in Wealden.

At LSOA level, two Eastbourne LSOAs from 2011 were merged to form one larger LSOA for 2021, while 3 LSOAs in Wealden were split to form 7 LSOAs for 2021.

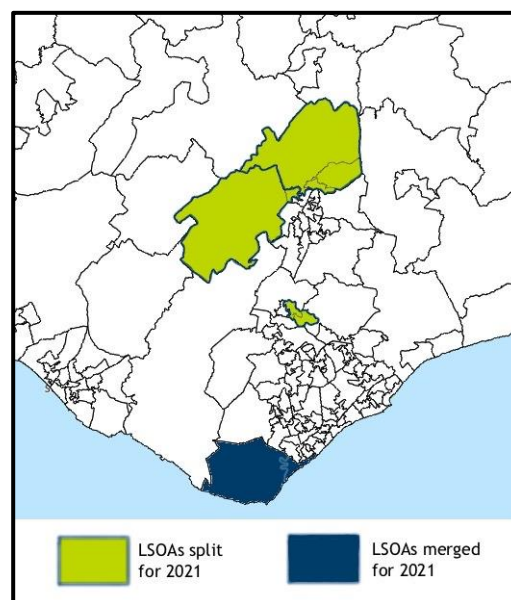
Summary of OA and LSOA changes from 2011-2021

Output Areas (OAs)

- 28 OAs from 2011 were split to form 72 new OAs for 2021.
- 2 OAs in Rother were merged and 2 OAs in Wealden were merged.
- Net effect of this change was to increase the number of OAs from 1,776 units in 2011 to 1,818 units in 2021.

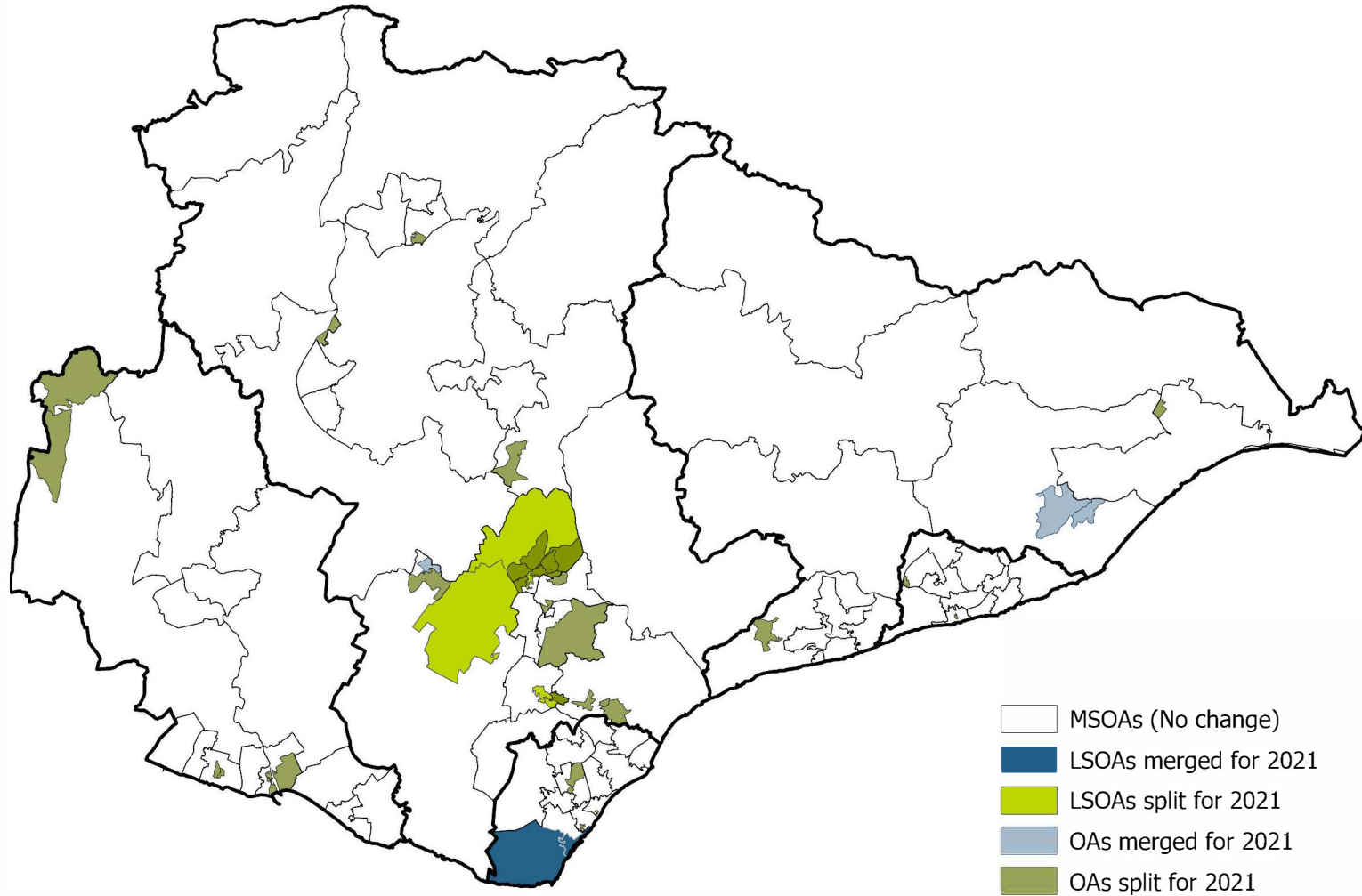
Lower Layer Super Output Areas (LSOAs)

- 3 LSOAs in Wealden from 2011 were split to form 7 new LSOAs for 2021.
- 2 LSOAs in Eastbourne were merged.
- Net effect of this change was to increase the number of LSOAs from 329 units in 2011 to 332 units in 2021.



Source: East Sussex County Council, ONS, ArcGIS/ESRI

Summary of OA and LSOA changes from 2011-2021



Source: East Sussex County Council, ONS, ArcGIS/ESRI

Appendix A: Lookup table for 2011 to 2021 OA changes

Eastbourne Output Areas

2011 OA Code	2021 OA Code	Nested within LSOA
E00106160	E00181220 E00181237 E00181249	Eastbourne 010C E01020912
E00106275	E00181212 E00181248	Eastbourne 011C E01020912
E00106452	E00181205 E00181240	Eastbourne 008B E01020963

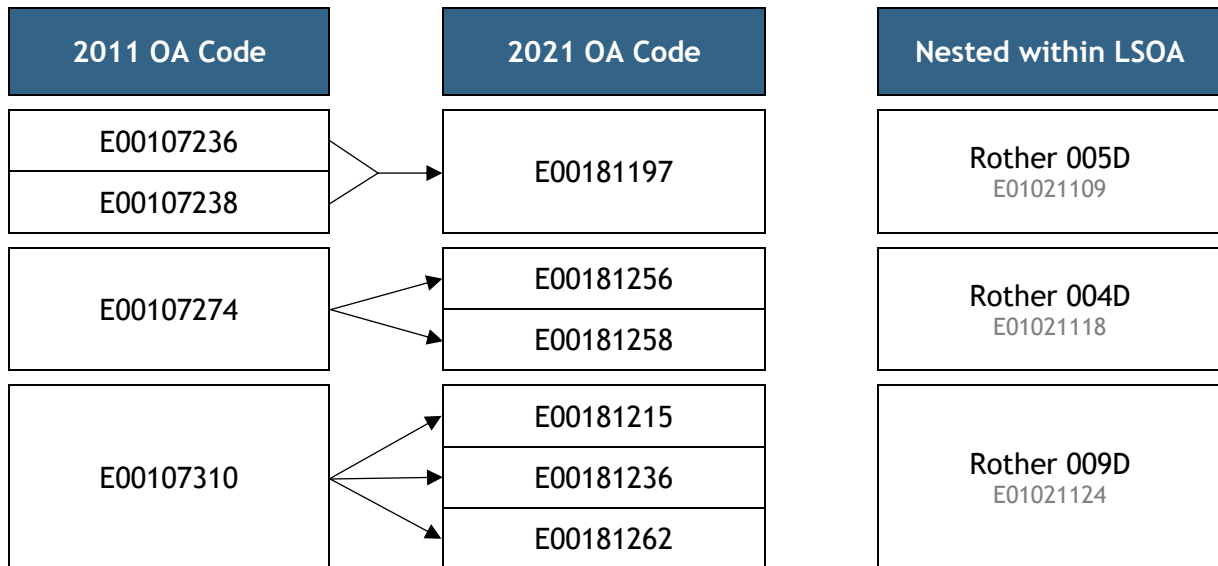
Hastings Output Areas

2011 OA Code	2021 OA Code	Nested within LSOA
E00106542	E00181226 E00181250	Hastings 011B E01020983
E00106608	E00181225 E00181265	Hastings 003D E01020996

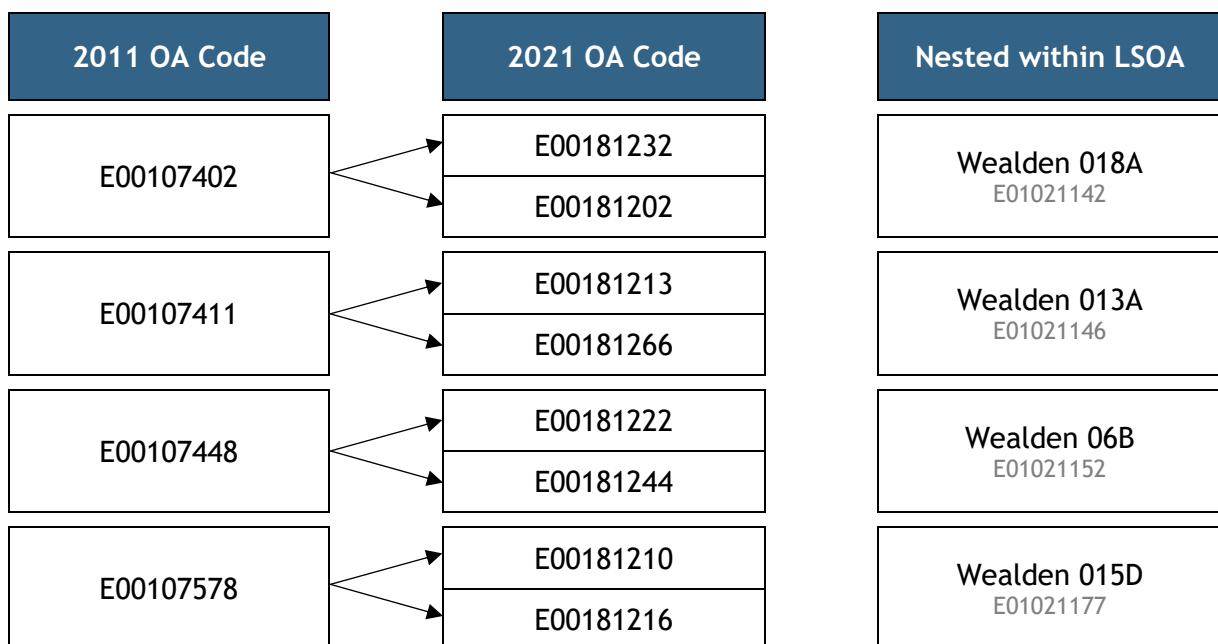
Lewes Output Areas

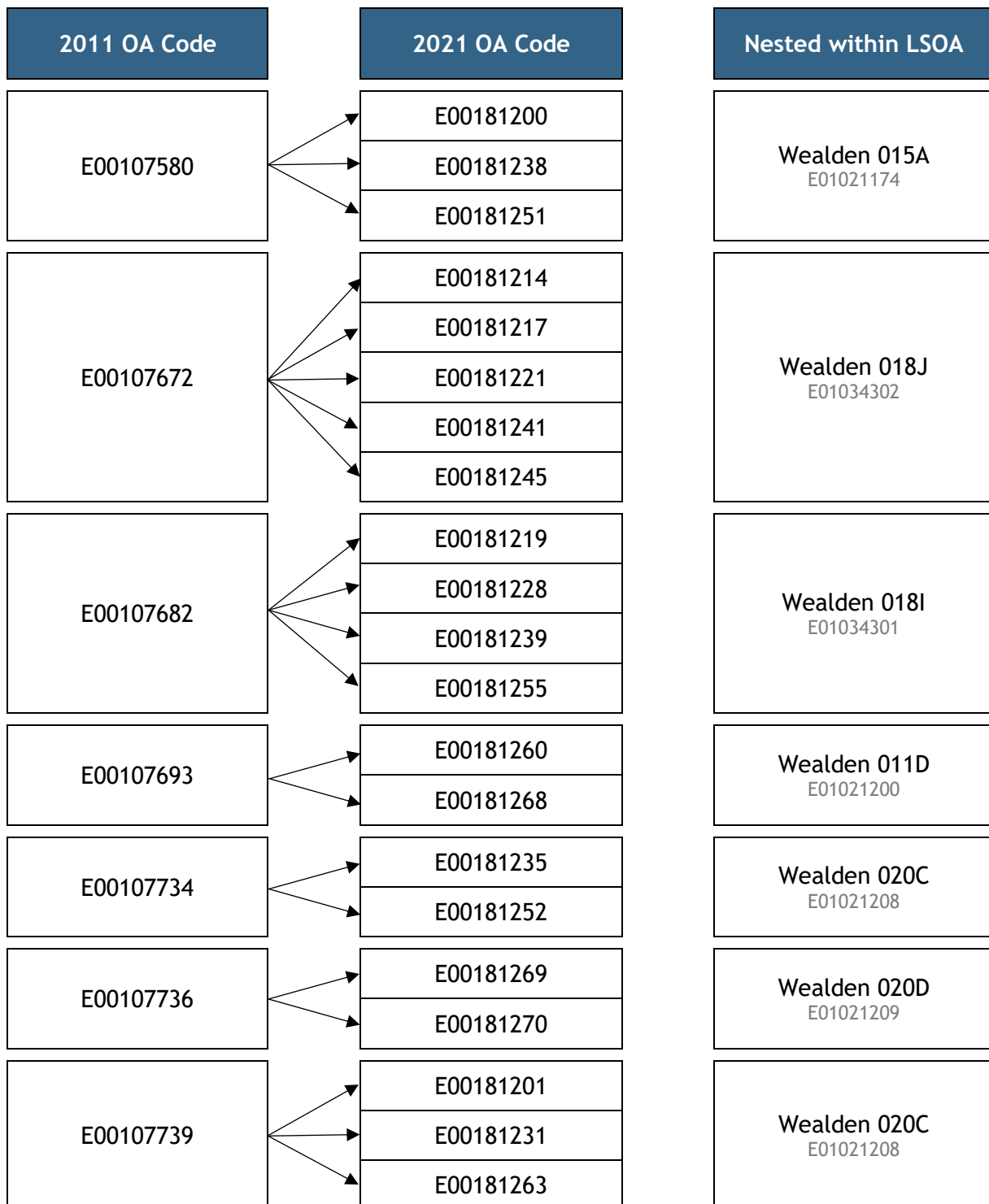
2011 OA Code	2021 OA Code	Nested within LSOA	
E00106779	E00181204	Lewes 002A E01021023	
	E00181267		
E00106784	E00181211		Lewes 002B E01021026
	E00181246		
E00106882	E00181203		Lewes 008A E01021045
	E00181206		
	E00181254		
E00106887	E00181218	Lewes 008D E01021048	
	E00181227		
	E00181242		
E00106951	E00181207	Lewes 010C E01021060	
	E00181261		
E00106960	E00181243	Lewes 010C E01021060	
	E00181259		

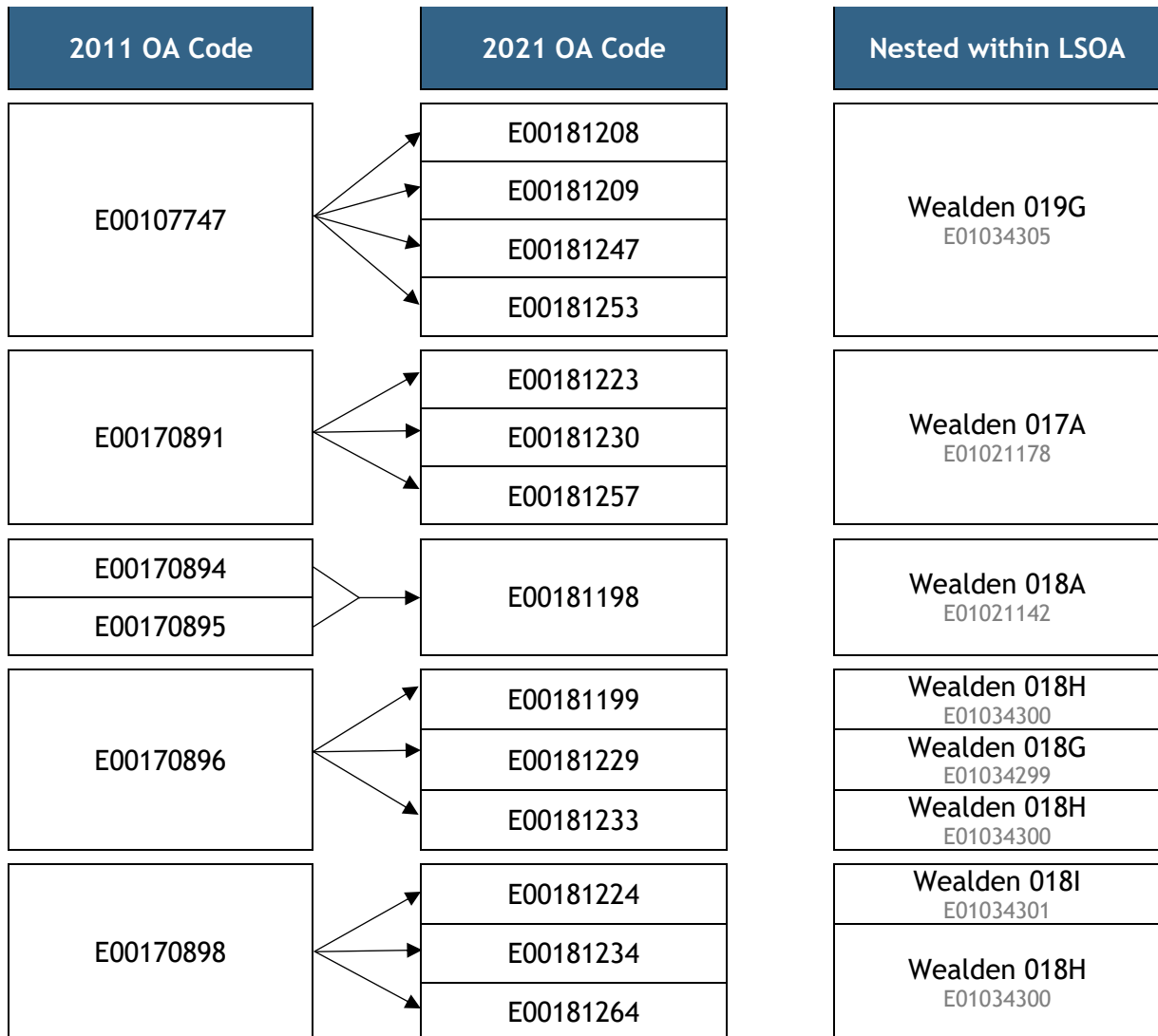
Rother Output Areas



Wealden Output Areas







Appendix B: Lookup table for 2011 to 2021 LSOA changes

Eastbourne Lower Layer Super Output Areas


2011 LSOA Code	2021 LSOA Code	Nested within MSOA
Eastbourne 012C	Eastbourne 012F	Eastbourne 012 E02004367
Eastbourne 012D		

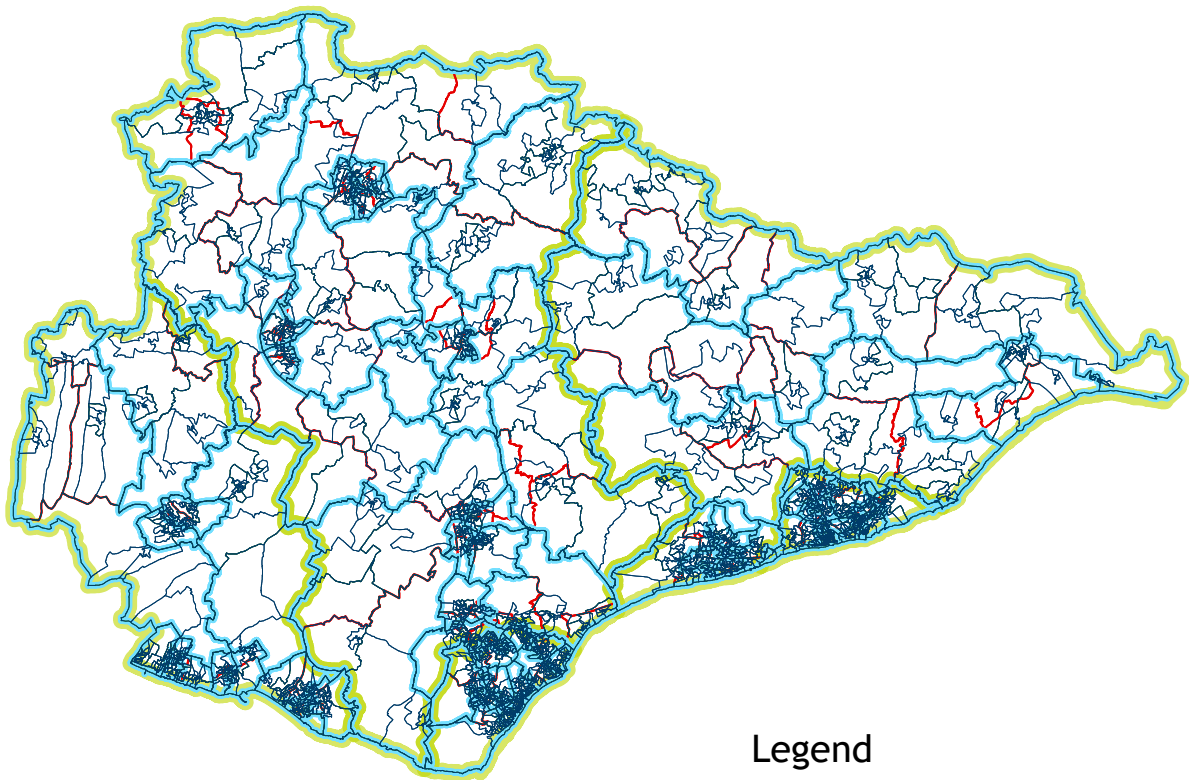
Wealden Lower Layer Super Output Areas

2011 LSOA Code	2021 LSOA Code	Nested within MSOA
Wealden 018D	Wealden 018G	Wealden 018 E02004420
	Wealden 018H	
	Wealden 018I	
Wealden 018F	Wealden 018J	Wealden 019 E02004421
	Wealden 018K	
Wealden 019A	Wealden 019F	
	Wealden 019G	

Appendix C: East Sussex - Geographical Units

This map will allow you to select and view the different geographic units to see how they relate to one another. This is done by switching the individual layers on and off in the panel on the left of Adobe Acrobat Reader (click on the eyeball icons to toggle layers on and off).

 In order to be able to access this feature, you may need to select 'View' from the main menu bar, then 'Show/Hide' then 'Navigation Panes' and finally 'Layers'. The full list of layers can be found in the sub-folder 'Geographic Units', located within the 'Map' folder.



Legend

-  Districts
-  Wards
-  MSOA
-  LSOA
-  OA

Source: East Sussex County Council, ONS, ArcGIS/ESRI
Note: Wards are post-2019

Appendix D: House of Commons Library MSOA Names

MSOA	Name
Eastbourne 001	Langney West
Eastbourne 002	Hampden Park North
Eastbourne 003	Langney East
Eastbourne 004	Hampden Park South
Eastbourne 006	Ratton
Eastbourne 007	Roselands
Eastbourne 008	Upperton
Eastbourne 009	Old Town & Motcombe
Eastbourne 010	Pier
Eastbourne 011	King Edward's Parade
Eastbourne 012	Meads
Eastbourne 013	St Anthony's Hill
Eastbourne 014	Sovereign Harbour
Hastings 001	Ashdown
Hastings 002	Conquest & St Helens
Hastings 003	Hollington
Hastings 004	Ore
Hastings 005	Broomgrove
Hastings 006	Silverhill
Hastings 007	Old Hastings
Hastings 008	Braybrooke & Bohemia
Hastings 009	Central Hastings
Hastings 010	West St Leonards
Hastings 011	Central St Leonards
Lewes 001	Chailey, Newick & Barcombe
Lewes 002	Wivelsfield Green, Ditchling & Rodmell
Lewes 003	Lewes Central & East
Lewes 004	Ringmer, Glynde & South Heighton
Lewes 005	Lewes West
Lewes 006	East Saltdean & Telscombe Cliffs
Lewes 007	Peacehaven West
Lewes 008	Newhaven Town
Lewes 009	Newhaven West
Lewes 010	Peacehaven East

MSOA	Name
Lewes 011	East Blatchington
Lewes 012	Seaford Eastbourne Road
Lewes 013	Seaford Town
Rother 001	Robertsbridge, Hurst Green & Ticehurst
Rother 002	Northiam, Peasmarsh & Camber
Rother 003	Burwash, Sedlescombe & Staplecross
Rother 004	Rye & Winchelsea
Rother 005	Westfield, Fairlight & Broad Oak
Rother 006	Battle & Catsfield
Rother 007	Bexhill North & Sidley
Rother 008	Bexhill East & Pebsham
Rother 009	Collington, Cooden & Little Common
Rother 010	Kewhurst
Rother 011	Bexhill Central
Wealden 001	Forest Row & Coleman's Hatch
Wealden 002	Frant & Groombridge
Wealden 003	Crowborough North East
Wealden 004	Crowborough Whitehill & Warren
Wealden 005	Mayfield & Wadhurst
Wealden 006	Crowborough South East
Wealden 007	Chelwood & Nutley
Wealden 008	Buxted, Framfield & Rotherfield
Wealden 009	Uckfield Town & North
Wealden 010	Heathfield
Wealden 011	Broad Oak & Horam
Wealden 012	Uckfield South
Wealden 013	Five Ash Down, Horsted & Chiddingly
Wealden 014	Herstmonceux & Ninfield
Wealden 015	Hailsham Central & East
Wealden 016	Hailsham South & West
Wealden 017	Hailsham East
Wealden 018	Hailsham North, Alfriston & East Dean
Wealden 019	Polegate
Wealden 020	Stone Cross, Westham & Pevensey Bay
Wealden 021	Willingdon

Source: House of Commons Library, <https://houseofcommonslibrary.github.io/msoanames>

Further Information

For more information about the census data visit the [ONS website](#). For queries specifically relating to East Sussex, please contact the Research and Intelligence Team via email at esif@eastsussex.gov.uk.

The Research and Intelligence Team, Governance Services, provides demographic and socio-economic data, intelligence and insight to support East Sussex County Council and other East Sussex Partners. The Team also manages East Sussex in Figures (ESiF), the Local Information System for East Sussex. ESiF is a web-based information system that contains detailed, up-to-date and reliable information on a very wide range of topics. Visit www.eastsussexinfigures.org.uk for more information.