

Geography – 2011 Census

Digital Boundaries File Specification

National Records of Scotland (NRS) have created the following digital boundaries for use with 2011 Census statistics.

2011 Output Areas

There are 46,351 2011 output areas. NRS have created 2 versions of the boundaries:

- Extent of the Realm (EoR) - The boundaries are to the Mean Low Water Mark.
- Clipped to the coastline (MHW) – The above EoR boundaries are clipped to the Mean High Water (MHW) Mark.

More information on geography boundary coverage can be found on the [2011 Census Supporting Information](#) section of the NRS website.

2011 Output Areas(OAs) – Part Removed

Of the 46,351 OAs created, there were 349 that were non-contiguous because the polygons were separated by other output areas. It was agreed that we remove one of the polygons to make the Output Area (OA) whole. This is a purely cosmetic exercise. The OA part to be removed is the part which does not contain the master postcode. In the majority of cases this is the smaller of the 2 (or more) parts of the non contiguous OA. However, in a few instances it may be the larger part simply because the smaller part is more dense and the master postcode has been assigned to it. The parts of these non-contiguous OAs were merged with adjoining OAs to create single polygon OAs, where possible. This did not affect the census statistics, calculation of the master postcode, the 'higher area' assignment or the area calculation for the OA all of which were based on all of the constituent parts of the OA.

A document listing the affected postcodes and OAs is also available on the [2011 Census Supporting Information](#) section of the NRS website.

2011 Output Area – Population Weighted Centroids

The master postcode was selected using an algorithm which calculates the postcode centroid within an OA which has grid references closest to the population-weighted centre of the OA. In some instances, it was necessary to assign master postcodes manually or deviate from the standard algorithm.

Geography – 2011 Census

Digital Boundaries File Specification

2011 Frozen Postcode

There are 145,690 2011 frozen postcodes. NRS have created 2 versions of the boundaries:

- Extent of the Realm (EoR) - The boundaries are to the Mean Low Water Mark.
- Clipped to the coastline (MHW) – The above EoR boundaries are clipped to the Mean High Water Mark. ‘

More information on geography boundary coverage can be found on the [2011 Census Supporting Information](#) section of the NRS website.

2011 Census Local Characteristic (LC) Sector

These are one of two types of census-specific postcode sectors in census output: The difference between the two types of sectors is the confidentiality thresholds. There are 1,012 Local Characteristic sectors which have a minimum threshold of 20 households and 50 persons – the same minimum threshold for Output Areas.

2011 Census Detailed Characteristic (DC) Sector

These are one of two types of census-specific postcode sectors in census output: The difference between the two types of sectors is the confidentiality thresholds. There are 866 Detailed Characteristic sectors which have a minimum threshold of 400 households and 1,000 persons.

Background information on our frozen geography policy and the 2011 Census geographies: Output Areas, master postcode, Local Characteristic Sector and Detailed Characteristic Sector can be found in the [2011 Census Supporting Information](#) section of the NRS website.

Geography – 2011 Census

Digital Boundaries File Specification

Product: 2011 Output Areas

- **EoR – Boundaries to the ‘Extent of the Realm’**
- **MHW – Boundaries ‘Clipped to the coastline’ (with inland water excluded)**

| File name(s) | Field names | Description | Field Type and Length |
|--|-------------|--|-----------------------|
| OutputArea2011_EoR OutputArea2011_MHW | code | A code that identifies a 2011 Census Output Area. | Character - 9 |
| | HHcount | 2011 Census occupied household count | Numeric |
| | Popcount | 2011 Census usually resident population count | Numeric |
| | council | A code that identifies a 2011 Council Area. | Character - 9 |
| | sqkm | The area of the 2011 Output Area in square kilometres. Area to 6 decimal places. | Numeric |
| | hect | The area of the 2011 Output Area in hectares. Area to 6 decimal places. | Numeric |
| | masterpc | The Master Postcode is the postcode with grid references closest to the centre of the Output Area weighted by Census total usually resident population (household + communal). | Character - 9 |
| | easting | British National Grid reference of master postcode - easting | Character - 6 |
| | northing | British National Grid reference of master postcode - northing | Character - 7 |

Note: The area held in ‘sqkm’ and ‘hect’ will not agree with the area which users will be able to calculate from the shapefile. This is because the area recorded in these fields is based on the Output Area (OA) and all of its constituent parts, whereas some constituent parts have been removed from the shapefile.

Geography – 2011 Census

Digital Boundaries File Specification

Product: 2011 Output Areas – Part Removed

| File name | Field names | Description | Field Type and Length |
|----------------------------|-------------|--|-----------------------|
| OutputArea2011_PartRemoved | code | A code that identifies a 2011 Census Output Area. | Character - 9 |
| | HHcount | 2011 Census occupied household count | Numeric |
| | Popcount | 2011 Census usually resident population count | Numeric |
| | council | A code that identifies a 2011 Council Area. | Character - 9 |
| | sqkm | The area of the 2011 Output Area in square kilometres. Area to 6 decimal places. | Numeric |
| | hect | The area of the 2011 Output Area in hectares. Area to 6 decimal places. | Numeric |
| | masterpc | The Master Postcode is the postcode with grid references closest to the centre of the Output Area weighted by Census total usually resident population (household + communal). | Character - 9 |
| | easting | British National Grid reference of master postcode - easting | Character - 6 |
| | northing | British National Grid reference of master postcode - northing | Character - 7 |

Note: The area held in 'sqkm' and 'hect' will not agree with the area which users will be able to calculate from the shapefile. This is because the area recorded in these fields is based on the Output Area (OA) and all of its constituent parts, whereas some constituent parts have been removed from the shapefile.

Geography – 2011 Census

Digital Boundaries File Specification

Product: 2011 Output Area – Population Weighted Centroids

| File name | Field names | Description | Field Type and Length |
|--------------------|-------------|--|-----------------------|
| OutputArea2011_PWC | code | A code that identifies a 2011 Census Output Area. | Character – 9 |
| | masterpc | The Master Postcode is the postcode with grid references closest to the centre of the Output Area weighted by Census total usually resident population (household + communal). | Character - 9 |
| | easting | British National Grid reference of master postcode - easting | Character - 6 |
| | northing | British National Grid reference of master postcode - northing | Character - 7 |

Geography – 2011 Census

Digital Boundaries File Specification

Product: 2011 Frozen Postcode

- **EoR – Boundaries to the ‘Extent of the Realm’**
- **MHW – Boundaries ‘Clipped to the coastline’ (with inland water excluded)**

| File name(s) | Field names | Description | Field Type and Length |
|--------------------------------------|-------------|---|-----------------------|
| Postcode2011_EoR Postcode2011_MHW | postcode | The Royal Mail Postcode. Comprised of for example: Area EH District 10 Sector 4 Unit SU Full postcode = EH10 4SU Along with any split indicator (A, B, C) added by National Records of Scotland (NRS). | Character - 9 |
| | HHcount | 2011 Census postcode occupied household count. | Numeric |
| | Popcount | 2011 Census postcode usually resident population count. | Numeric |
| | council | A code that identifies a 2011 Council Area. | Character - 9 |

Geography – 2011 Census

Digital Boundaries File Specification

Product: 2011 Local Characteristic (LC) Sector

| File name | Field names | Description | Field Type and Length |
|-------------------------------|-------------|--|-----------------------|
| LocalCharacteristicSector2011 | code | A code that identifies a 2011 Local Characteristic Sector. | Character - 9 |

Product: 2011 Detailed Characteristic (DC) Sector

| File name | Field names | Description | Field Type and Length |
|----------------------------------|-------------|---|-----------------------|
| DetailedCharacteristicSector2011 | code | A code that identifies a 2011 Detailed Characteristic Sector. | Character - 9 |