

# Information Note

## Comparable Postcode Products

2024  
National Records of Scotland (NRS)

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## Background

NRS Geography are aware that there are comparable products at postcode level produced for the whole of the UK via the Office for National Statistics and Ordnance Survey.

This document provides information on the known differences between the NRS Scottish Postcode Directory and these equivalent products.

## NRS Scottish Postcode Directory (SPD)

The Scottish Postcode Directory is our core product released on a bi-annual basis (approx. Feb/Mar and Aug/Sept).

NRS Product Page - [Scottish Postcode Directory \(SPD\)](#)

The SPD is made up of two key files:

- **Postcode Index**  
A file containing both live and deleted postcodes assigned to a variety of geographical areas in Scotland. This Index is accompanied by a database containing various look-up tables to higher geographical areas.
- **Postcode Boundaries**  
A file containing a digital boundary for every live postcode corresponding with the Postcode Index.

Other spatial datasets are also made available (postcode grid references, postcode district boundaries and grid references, and postcode sector boundaries and grid references).

A news bulletin, data dictionary and spatial files are provided with each release.

Free access to the postcode boundaries and grid references are restricted to members of the [Public Sector Geospatial Agreement](#) (PSGA) (Ordnance Survey website). More information on licensing is available on the [Geography Licensing](#) page of the NRS website.

## ONS Postcode Directory (ONSPD)

The ONSPD is the UK equivalent to our SPD Index.

ONS Open Geography Portal Product Page – [Open Geography Portal - All ONSPDs](#)

The ONS Postcode Directory (ONSPD) relates both current and terminated postcodes in the United Kingdom to a range of current statutory administrative, electoral, health, and other geographical areas.

## Differences between the directories

Known differences between the ONSPD and the SPD Index are detailed below:

### Release Dates

ONS release this data on a quarterly basis (Feb, May, Aug, Nov). The SPD Index is released on a bi-annual basis (approx. Feb/Mar and Aug/Sept).

### Postcode Updates

There are differences in the currency of the postcode source data with quarterly updates from PAF received by NRS from Royal Mail and an internal update is supplied to ONS enabling the ONSPD to be updated each month. These supplies both underpin the publication of the respective postcode directories.

The ONSPD includes postcodes with a lifespan of less than 3 months whereas the SPD Postcode Index does not. Short-life postcodes arise due to the differing update regimes existing between ONS (monthly RM feed) and NRS (quarterly). Where this occurs ONS provide imputed area assignments for small user postcodes. For example, small user postcode KY16 8BF, and large user postcode EH3 1JY were introduced on the ONSPD in April 2023 and deleted in May 2023. Neither of these postcodes are on the SPD as they were introduced after the cut off period for the PAF update in April and deleted before the cut off period for the PAF update in July that NRS receive.

### Postcode History

The ONSPD provides the most recent version of the postcode only. The SPD includes a complete time-series of terminated postcodes and split postcodes.

ONSPD:

Postcode	Date of Introduction	Date of Deletion
G31 4QD	201310	

SPD Postcode Index:

Postcode	Date of Introduction	Date of Deletion
G31 4QD	01-Aug-73	01-May-95
G31 4QD	20-Apr-12	06-Jul-12
G31 4QD	17-Apr-13	07-Aug-13
G31 4QD	16-Jan-14	

### Split Postcodes

The ONSPD holds the postcode as a whole record. This is the format that Royal Mail (RM) issue postcodes. RM do not recognise local authority or any administrative

area boundaries; instead, RM assign postcodes to aid efficient mail delivery. As a result, some postcodes may contain addresses in more than one local authority (including those split by the Scotland-England border), island mainland area, or multiple islands.

NRS Geography have split postcodes for statistical reasons since we first began plotting postcode boundaries in 1973. NRS split postcode policy has enabled census and other NRS statistical areas to produce more accurate statistics. This is particularly true for census statistics which are produced exactly for Scotland, Council area, Health Board area, and Islands.

More information on split postcodes is available via the [NRS Split Postcode Policy](#) on the Geography Policies and Information Notes page of the NRS website.

### Grid References

There are differences in how a postcode centroid is derived between the two directories. The ONSPD uses Gridlink grid references, whereas the SPD uses a mix of Gridlink grid references and NRS grid references.

NRS Geography create their own postcode boundary polygons within GIS, which are used in the production of the SPD. If a Gridlink postcode centroid grid reference is supplied which falls outside the NRS postcode polygon, an NRS grid reference is used. This scenario is likely to account for small differences in postcode centroid grid references between the two postcode directories.

More information on the application of Gridlink in the SPD is available via our [Gridlink Policy](#) on the Geography Policies and Information Notes page of the NRS website.

### Statistics on differences

We have compared both directories (SPD 2024/1 and ONSPD Feb 2024) to highlight differences between the products. To make the figures more comparable, we have removed B/C splits, and postcode history from the SPD Index, and only chosen records with the country code (S92000003) from the ONSPD.

There are postcodes that exist on one directory but not the other, and vice versa. Over 99.9% of live postcodes match between the directories.

Where the live small user postcode matched on both the SPD and ONSPD, we have reviewed the grid references and 2.95% had different postcode grid references due to differing digitising methods, and data imputation. The difference in the location of the postcode grid reference is confined to small user postcodes as all large user postcodes have the same grid reference.

We also analysed postcodes that were allocated to different 2011 Output Areas in the SPD and ONSPD. Of the live small user postcodes that matched between the directories 556 (0.36%) were allocated to different 2011 Output Areas.

## Ordnance Survey Code-Point with Polygons

Ordnance Survey Code-Point with Polygons is the GB equivalent to our SPD Boundaries.

Ordnance Survey Product Page – [Code-Point with Polygons](#)

Known differences between OS Code-Point with Polygons and the SPD Boundaries are detailed below:

### Release Dates

Ordnance Survey release this data on a quarterly basis (Jan, Apr, Jul, Oct). The SPD Boundaries are released on a bi-annual basis (approx. Feb/Mar and Aug/Sept).

### Digitising Methods

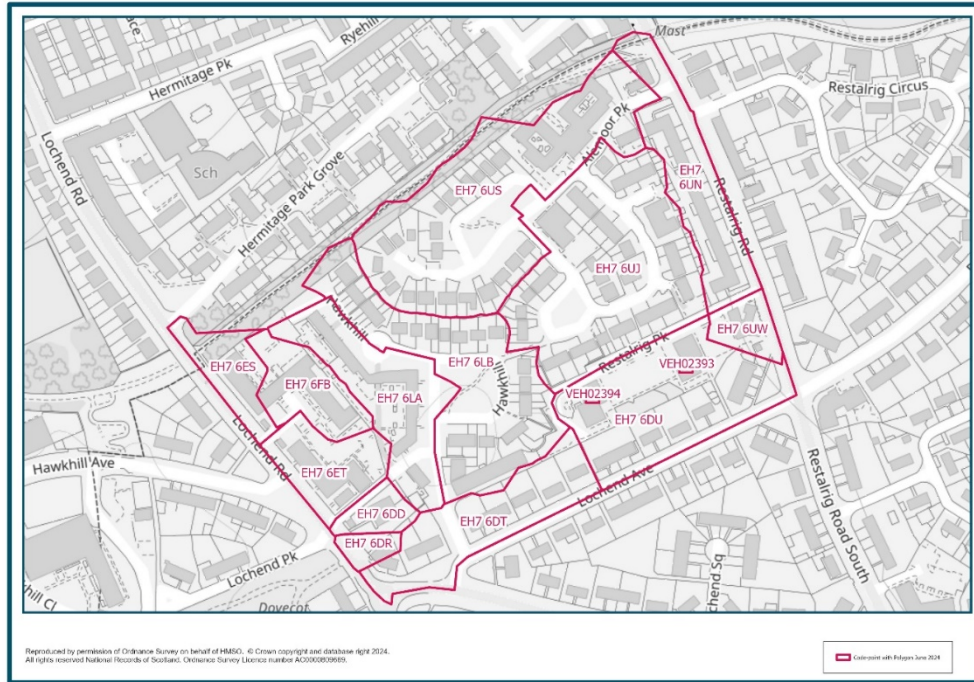
The OS Code-Point with Polygons product is produced via an automated process, the polygons do not always reflect recognisable features or distinguish between urban and rural areas, and do not fit exactly within Local Authorities and Islands, therefore do not recognise split postcodes.

The 'Code-Point with Polygons Getting Started Guide' advises that the polygons within the Code-Point with Polygons product are derived from georeferenced Royal Mail Postal Address File (PAF) delivery addresses. A process is undertaken to create a set of polygons around individual address records within a postcode. This is called a Thiessen process, and the polygons are the result of a mathematical computation that creates polygons from point data. In this way, mathematically consistent boundaries are created between distinct postcode groups, creating this notional boundary set. Only addresses having a positional quality value indicating the location is within a building are used to create the polygons file. Postcodes of addresses of lower quality will be included in the discard files for the product.

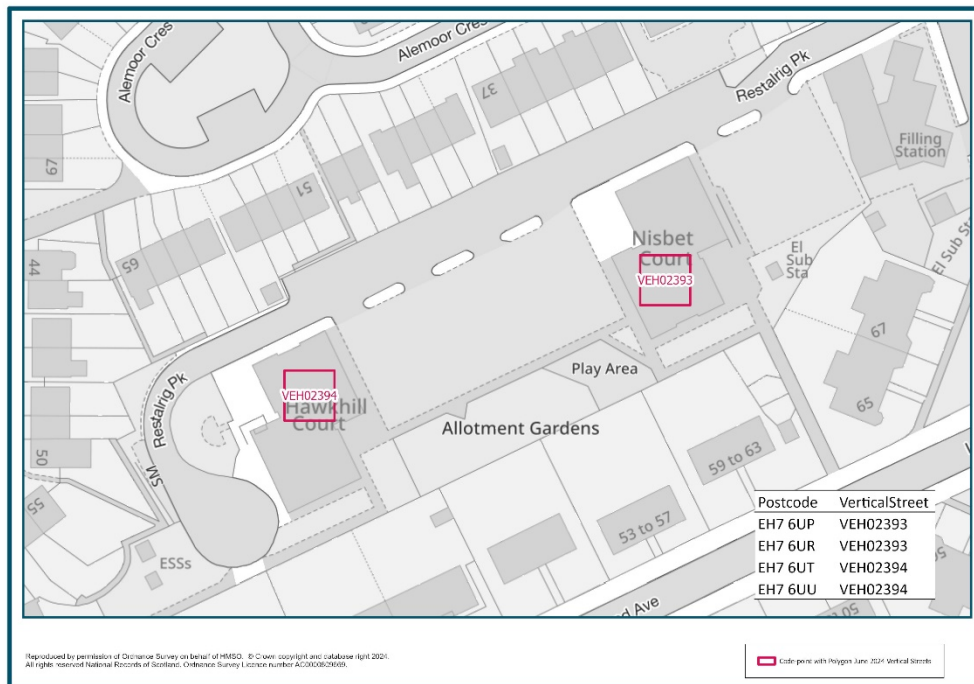
The 'Code-point with Polygons Overview' advises there are two additional files within the product:

- Vertical streets: A list of polygons, identified by a serial number that is prefixed by the letter V, which contain more than one postcode. This situation can occur in, for example, a block of flats where there is more than one postcode within a single building.
- Discard files: A list of the postcodes for which polygons have not been included because there is no data of sufficient quality to use in the polygon creation, or because their constituent addresses lie outside the extent of the realm (coastline). The discard file also contains a list of PO Box postcodes as none of these will have been used in the creation of the polygon set.

The image below, depicts the Code-Point with Polygon boundaries for an area in Edinburgh.



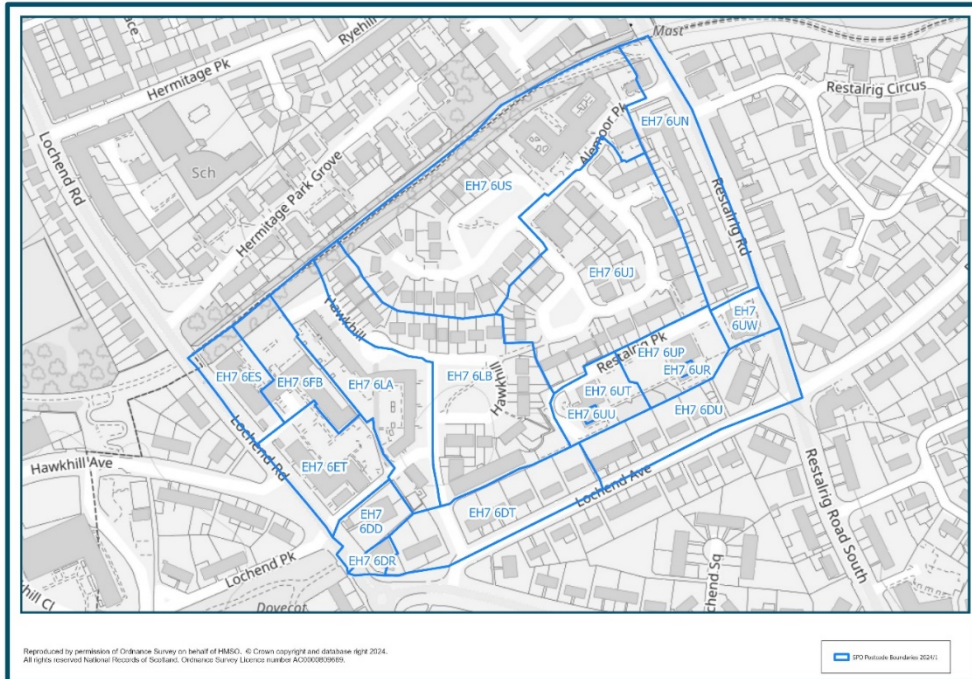
This area contains two 'Vertical Streets' – VEH02393 and VEH02394. VEH02393 covers postcodes EH7 6UP and EH7 6UR, and VEH02394 covers postcodes EH7 6UT and EH7 6UU.



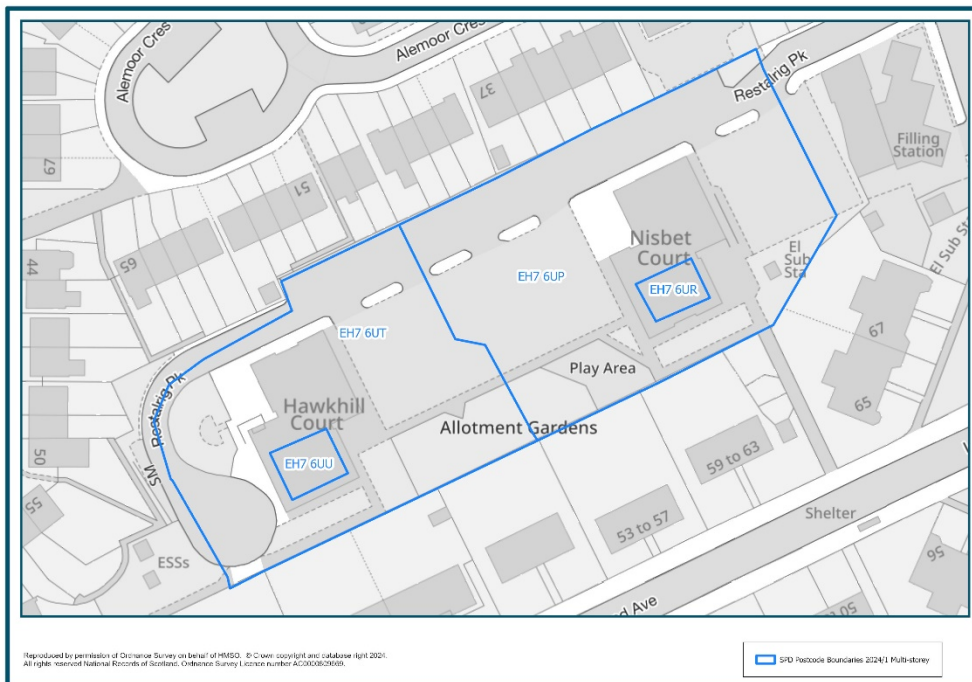
The SPD Boundaries are manually digitised, so follow natural or man-made features, and are also drawn to fit exactly within Local Authorities, and Islands (by splitting postcodes and assigning a suffix), in line with user needs. NRS do not produce boundaries for Large User (including PO Box) postcodes, we provide grid references for these postcodes via the SPD Postcode Index.



The image below depicts the SPD postcode boundaries for the same area in Edinburgh as previously shown.



Unlike Code-Point with Polygons, we do not have Vertical Streets, and have digitised the postcodes for the multi-storey properties.



Information on how NRS Geography use and digitise postcodes is available in our [Postcodes Information Note](#) and [NRS Postcode Digitising Policy](#) on the Geography Policies and Information Notes page of the NRS website.

## Comparison of Products Overview

If working with UK or GB level data it is recommended to use consistent products, i.e., ONSPD and Code-Point with Polygons, rather than the SPD Index and Code-Point with Polygons.

A quick glance overview is provided below:

### Indexes

	<b>SPD</b>	<b>ONSPD</b>
Coverage	Scotland	UK
Postcode Unit	✓	✓
Postcode Type – Small User	✓	✓
Postcode Type – Large User (incl PO Box)	✓	✓
Postcode History	✓	✗
Delivery Point Counts*	✓	✓
Eastings and Northings	✓	✓
Split postcode Indicator	✓	✗
Positional Quality Indicator	✓	✓
GSS codes	✓	✓

\*These data are licensed, so are only available to members of the Public Sector Geospatial Agreement

### Boundaries

	<b>SPD</b>	<b>OS Code-Point with Polygon</b>
Coverage	Scotland	GB
Digitising method	Manual	Automated
Postcode Unit	✓	✓
Split postcodes	✓	✗
Vertical streets	✗	✓
Discard files	✗	✓