ORDNANCE SURVEY GB

OS MASTERMAP GREENSPACE LAYER™ – OVERVIEW

Version history

Version	Date	Description
1.0	05/2017	Initial release.
1.1	04/2022	Document name change from Product Guide to Overview. Introduction of GeoPackage and vector tiles formats to the product. Minor formatting updates to the document.

Purpose of this document

This document provides information about and insight into the OS MasterMap Greenspace Layer product and its potential applications. For information on the contents and structure of OS MasterMap Greenspace Layer, please refer to the Technical Specification and Getting Started Guide.

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Contact details

OS website 'Contact us' page (https://www.ordnancesurvey.co.uk/contact-us).

Contents

1. Introduction to the product

OS MasterMap Greenspace Layer gives a comprehensive view of the green spaces within an urban area. The dataset consists of topographic areas published in OS MasterMap Topography Layer, with additional green space-specific attribution to describe their function. It includes both publicly accessible and private green spaces, sports facilities and natural environment features, to give a comprehensive view of spaces that are important for applications such as environmental management, health, planning, or habitat mappings. This product is designed for PSGA customers with these uses in mind.

1.1 Key features

The key features of the OS MasterMap Greenspace Layer are:

- Comprehensive coverage of the natural environment in major urban areas

- Identifies green spaces, both public and private

- Built from a sub-set of OS MasterMap Topography Layer and retains the detailed features from this product and their positional accuracy

- Inclusion of OS MasterMap Topography Layer TOID attribute to allow links between these MasterMap products

- Information on both form and function of the green space areas to better describe the environment of these spaces

- Ability to relate to the OS Open Greenspace product through the Greenspace IDs

- Space for up to two forms and two function categories per feature to allow for complex land areas

1.2 Product applications

OS MasterMap Greenspace Layer supports a wide range of customer applications that use geographical information. The product can be used on its own, or combined with other Ordnance Survey products, such as OS MasterMap Topography Layer, OS MasterMap Sites Layer, and OS Open Greenspace. Applications of the OS MasterMap Greenspace Layer product include, but are by no means limited to:

- Providing detailed data to support audit, policy, planning, environmental planning, and research

- Analysing air quality and use of amenities

- Managing and planning green spaces efficiently

- Evaluating Britain's natural habitat and environment

- Encouraging activity for all, improving mental and physical health

2. Product details

2.1 Feature types

OS MasterMap Greenspace Layer contains one feature type: GreenspaceArea

OS MasterMap Greenspace Layer is comprised of a subset of the *TopographicArea* polygons from
OS MasterMap Topography Layer (which represent topographic objects that have a polygon-based
geometry). Only polygons which have been classified as a form of green space will be supplied. This subset
of polygons will have the Topographic Identifier (TOID) and version number from OS MasterMap
Topography Layer (to enable the datasets to be used in conjunction) plus additional attributes providing the
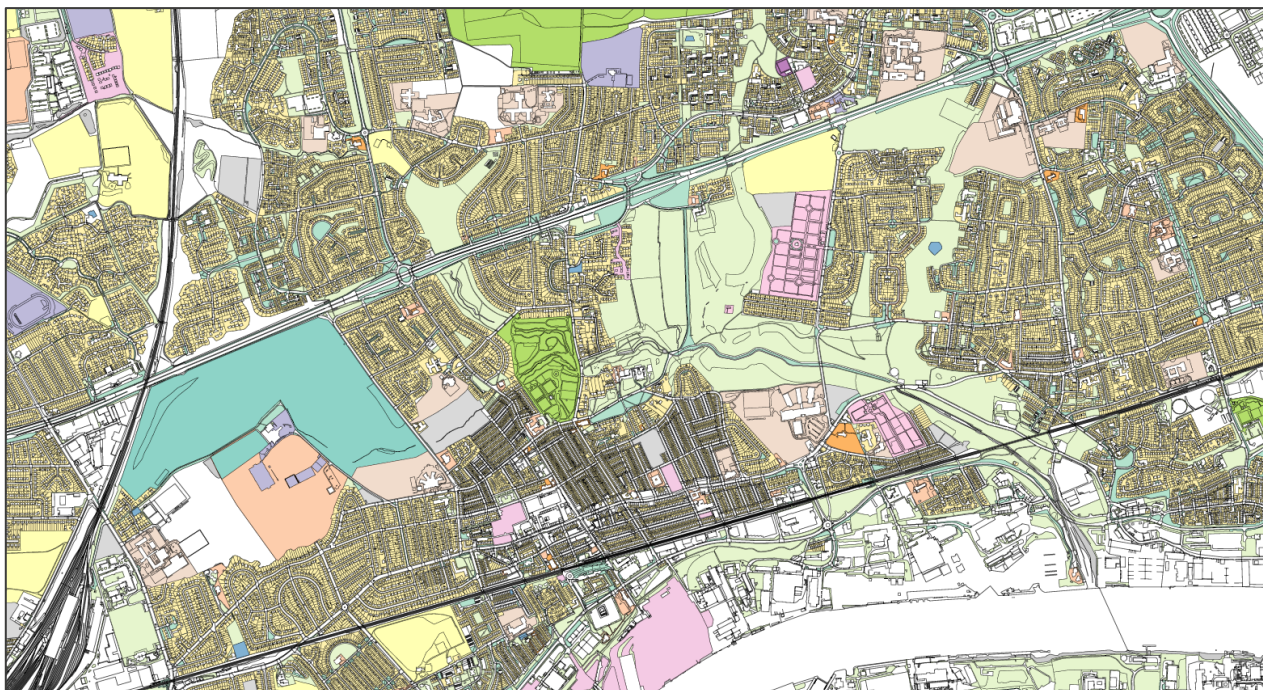green space-specific information.

Figure 1: OS MasterMap Greenspace Layer data showing detailed polygons overlaid on OS MasterMap Topography Layer

2.2 Attributes

TOID

The unique reference number of the feature in OS MasterMap Topography Layer. Combined with the
version number, this enables joins with the Topography Layer dataset.

Version

The version number of the feature in OS MasterMap Topography Layer. This identifies the specific version
of Topography Layer feature this dataset was created from. Combined with the TOID, this enables joins
with the Topography Layer dataset.

Primary function

The main function of the green space area. Functions are determined from a specific green space list, and for features within this dataset can be found below.

Secondary function

Where a polygon has more than one green space function present, this field will be populated with the second function. These functions come from the same list as the Primary Functions. The order of the Primary and Secondary Functions is predetermined by a hierarchy (shown later in this guide) and does not indicate an order of importance or scale.

Primary form

The main form of the green space area. Forms are determined from a specific green space list. A list of the possible forms for features within this dataset can be found later in this section.

Secondary form

Where a polygon has more than one green space form present, this field will be populated with the second form. These forms come from the same list as the Primary Forms. The order of the Primary and Secondary Forms is predetermined by a hierarchy (shown later in this guide) and does not indicate an order of importance or scale.

2.3 OS Open Greenspace lookup table

OS Open Greenspace is part of Ordnance Survey's Open Data portfolio and depicts the location and extent of exercise and recreation facilities likely to be open to the public. This Open Data product was designed alongside OS MasterMap Greenspace Layer, and it is intended that the two products can be used together easily.

A lookup table exists to form a link between the two products and is provided in the full Great Britain (GB) supply of OS MasterMap Greenspace Layer. Further information can be found in the product's technical specification, which is available on the [OS MasterMap Greenspace Layer Product Support page of the OS website](https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-greenspace-support) (https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-greenspace-support).

3.   Function and form

The green space specific attribution within this product consists of the form and function of the green space area.

3.1   Function

The functions included within OS MasterMap Greenspace Layer describe the purpose of the green space areas.

OS MasterMap Greenspace Layer includes the following functions:

- Allotments or Community Growing Spaces
- Amenity – Residential or Business
- Amenity – Transport
- Land Use Changing
- Bowling Green
- Camping or Caravan Park
- Cemetery
- Golf Course
- Institutional Grounds
- Natural
- Other Sports Facility
- Religious Grounds
- Play Space
- Playing Field
- Private Garden
- Public Park or Garden
- School Grounds
- Tennis Court

Detail and description of these functions can be found in the product's technical specification, which is available on the OS MasterMap Greenspace Layer Product Support page of the OS website (https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-greenspace-support).

3.1.1   Function hierarchy

The population of Primary Function and Secondary Function attributes is driven by a hierarchy. This hierarchy is applied to the data to determine which function is primary and secondary in cases where more than one function is applicable for a single topographic area polygon. Not every polygon will have more than one function due to the nature of the primary function, for example, cemeteries and allotments are not likely to have secondary functions. This hierarchy only applies where more than one function exists.

The hierarchy has been developed to ensure the process applies the appropriate functions and does not imply any level of priority.

This hierarchy is as follows:

1. Public Park or Garden
2. School Grounds
3. Institutional Grounds
4. Golf Course
5. Amenity – Residential or Business*
6. Amenity – Transport
7. Camping or Caravan Park
8. Religious Grounds
9. Cemetery
10. Private Garden
11. Playing Field
12. Other Sports Facility
13. Tennis Court
14. Allotments or Community Growing Spaces
15. Play Space
16. Bowling Green
17. Land Use Changing
18. Natural

*Due to the way Amenity – Residential or Business function is applied, it would not be expected to ever have a secondary function.

Detail on the functional hierarchy can be found in the Technical Specification.

3.2   Form

The forms included within OS MasterMap Greenspace Layer are:

• Woodland
• Open Semi-Natural
• Inland Water
• Beach or Foreshore
• Manmade Surface
• Multi Surface*

*While most polygons with this form will have a primary function of Private Gardens, this will not always be the case due to the function hierarchy.

3.2.1   Form hierarchy

Where more than one form value is applicable for a single topographic area polygon, the population of Primary Form and Secondary Form attributes is driven by a hierarchy. Not all polygons will have a form and this hierarchy only applies where more than one form exists.

The hierarchy has been developed to ensure the process applies the appropriate forms and does not imply any level of priority.

The form hierarchy is as follows:

1. Open Semi-Natural
2. Inland Water
3. Woodland
4. Beach or Foreshore*
5. Manmade Surface
6. Multi Surface

*Due to the way beach and foreshore polygons are located, areas with this form would not be expected to have a secondary form.

4.   Data creation

4.1   Geometry

The geometry for OS MasterMap Greenspace Layer is inherited directly from OS MasterMap Topography Layer.

Selections have been made to ensure that OS MasterMap Greenspace Layer is comprised of relevant polygons from the Topography Layer, with a green space focus. This green space determination comes from the Topography Layer attribution itself, and green space-relevant sites, some of which can also be found in the OS Open Greenspace product.

Information about the creation and selection of the green space sites can be found in the OS Open Greenspace product documentation, which is available on the [OS Open Greenspace Product Support page of the OS website](https://www.ordnancesurvey.co.uk/business-government/tools-support/open-map-greenspace-support) (https://www.ordnancesurvey.co.uk/business-government/tools-support/open-map-greenspace-support).

The Topographic area geometries and green space site layer attribution are combined in an automated process to produce a consistent layer of green space areas across urban Great Britain.

4.2   Attributes

The feature identifying attribution (TOID and Version) are taken directly from OS MasterMap Topography Layer.

Green space attribution is populated through overlaying green space sites onto OS MasterMap Topographic Area features. A subset of these green space sites is used to produce OS Open Greenspace.

4.3   Data completeness

Ordnance Survey is committed to maintaining its products to the highest levels of accuracy and currency. The initial capture of data for OS MasterMap Greenspace used our existing topographic databases and aerial imagery. As such, the quality of the data will be constrained to what can be achieved with this approach. For example, where an access into a site is obscured (for example, under trees) it will not be captured. In addition, the use of our existing databases to identify the location of sites of interest means that we cannot guarantee that all relevant sites will be included in the data. However, where we are informed and can verify that a feature is missing or inaccurately depicted in the dataset, we will make the necessary amendments to the dataset within six months of such verification. You can inform OS of any missing or inaccurately depicted feature in this product via the Error Reporting Tool on the [OS Data Hub](https://osdatahub.os.uk/) (https://osdatahub.os.uk/).

4.4   Positional accuracy

Since OS MasterMap Greenspace is a subset of topographic areas from OS MasterMap Topography Layer, it will inherit the positional accuracy from that product.

For a full explanation on OS MasterMap Topography Layer accuracies, please see the product's technical specification, which is available on the [OS MasterMap Topography Layer Product Support page of the OS website](https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-topography-support) (https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-topography-support).

4.5   Coordinate reference systems

The Geography Markup Language (GML), ESRI Shapefile, and GeoPackage formats use the British National Grid (BNG) spatial reference system. BNG uses the OSGB36 geodetic datum and a single Transverse Mercator projection for the whole of Great Britain. Positions on this projection are described using easting and northing coordinates in units of metres.

Vector tile format is supplied in Web Mercator projection (EPSG:3857). Web Mercator projection uses WGS84 geodetic datum to render the vector tiles.

A guide to coordinate systems in Great Britain is available at:

http://www.ordnancesurvey.co.uk/docs/support/guide-coordinate-systems-great-britain.pdf

A general introductory guide to BNG is provided at:

http://www.ordnancesurvey.co.uk/resources/maps-and-geographic-resources/the-national-grid.html.

5. Product supply

5.1 Available formats

OS MasterMap Greenspace Layer is supplied in four different formats:

- GML 3.2.1
- ESRI Shapefile
- GeoPackage
- Vector tiles (MBTiles)

5.2 Product supply mechanism

OS MasterMap Greenspace Layer incorporates a web-based ordering system that allows customers to order their initial data supply and any updates, obtain price estimates and view details of their holdings on demand. The product is supplied as an online download. You can download data in any of the available formats from the OS Data Hub (https://osdatahub.os.uk/).

5.3 Coverage

OS MasterMap Greenspace Layer covers all major urban areas in Great Britain.

For England and Wales, urban areas are included where they are greater than 6km².

For Scotland, urban areas are defined as those with a population more than 500. This is based on data provided by the National Records of Scotland. In Scotland a buffer of 500m has been added to the urban extents to define the product coverage.

Where a site crosses the boundary of an area, all features within the site are included in OS MasterMap Greenspace Layer, even where these are outside the urban area. This applies up to a limit of 1,500m from the urban boundary.

A coverage extent map and downloadable GIS files are available at the bottom of the OS MasterMap Greenspace Layer Product Support page on the OS website (https://www.ordnancesurvey.co.uk/business-government/tools-support/mastermap-greenspace-support.

5.4 File size

For all formats the data is only available as full supply (that is, not as a Change Only Update – COU). Orders of Great Britain (GB) only are available across all four formats. Area of Interest (AOI) orders are only available in GML or Shapefile formats.

For GML format, the product is supplied in 5km-by-5km tiles of data in either a specified AOI or GB supply. Tile file size estimates can vary from 1KB to 9,600KB.

For Shapefile format, the product is supplied in 5km-by-5km tiles of data in either a specified AOI or GB supply. Tile file size estimates can vary from 2KB to 10,900KB.

For GeoPackage and vector tiles formats, the coverage will be GB only. The file size is 6.83GB zipped for GeoPackage and 11.5GB zipped for vector tiles.

5.5   Product update schedule

OS MasterMap Greenspace Layer is updated every 6 months (April and October).