ORDNANCE SURVEY GB

OS OPEN GREENSPACE™ – OVERVIEW

Version history

Version	Date	Description
1.0	03/2017	Initial release.
1.1	01/2019	Introduction of GeoPackage format to the product.
1.2	04/2021	Introduction of vector tiles format to the product.
1.3	04/2023	Document name change from Product Guide to Overview. Formatting and content improvements. Addition of a new annex containing links to product support resources.

Purpose of this document

This document provides information about and insight into the OS Open Greenspace product and its potential applications. For information on the contents and structure of OS Open Greenspace, 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

This guide contains an overview of the OS Open Greenspace product and basic information needed to understand, use, and manage the product. For more detailed technical information and the data format specification, please see the product's *Technical Specification*.

OS Open Greenspace depicts the location and extent of spaces, such as parks and sports facilities, which are likely to be accessible to the public. Where appropriate, it also includes access points to show how to get into these sites. Its primary purpose is to enable members of the public to find and access greenspaces near them for exercise and recreation.

OS Open Greenspace is a generalised product which has been automatically generated and generalised from Ordnance Survey large-scale data.

1.1 Product highlights

The key highlights of OS Open Greenspace are as follows:

- Comprehensive coverage of publicly accessible greenspaces

- Polygons of greenspace extents

- Access points to depict the place and type of access to each site

- Up to four distinctive name attributes per site allow multiple official and local names to be available in the product for a single site

- The product is freely available online as an OS OpenData download and is part of the OS OpenData Portfolio (https://osdatahub.os.uk/downloads/open).

1.2 Product applications

OS Open Greenspace supports a wide range of customer applications that use geographical information. The product can be used alone or combined with other Ordnance Survey products, such as OS Open Roads, OS OpenMap – Local or other OS OpenData products.

Applications of the OS Open Greenspace product include, but are by no means limited to:

- Encouraging activity for all

- Allowing local residents to find new greenspaces local to them

- Encouraging discovery and use of new greenspaces

- Promoting health and wellbeing

- Analysing use of amenities

- Mapping routes to access the nearest greenspaces

- Managing and planning greenspaces effectively

1.3   Complementary datasets

Over the last few years, greenspace as a topic has seen a rise in interest and opinion. As a result, many other datasets on the topic have become available. These datasets can be used in conjunction with OS Open Greenspace to increase the range of potential applications, answer a wider spectrum of questions, and further promote activity and wellbeing. There are numerous sources of these datasets, and we have included the following links to get you started:

- MAGIC website (https://magic.defra.gov.uk/) – Authoritative geographic information about the natural environment from across government.

- 'Find open data' page of the gov.uk website (https://data.gov.uk/) – Open data published by central government, local authorities, and public bodies.

2.   Product details

2.1   Feature types

OS Open Greenspace has two feature types:

- **Greenspace Site** – A polygon defining the extent of greenspaces, such as parks and sports facilities, that are likely to be open for use by members of the public. These extents are generalised.

- **Access Point** – A point feature denoting where access to a site is located and the kind of access permitted at that location.

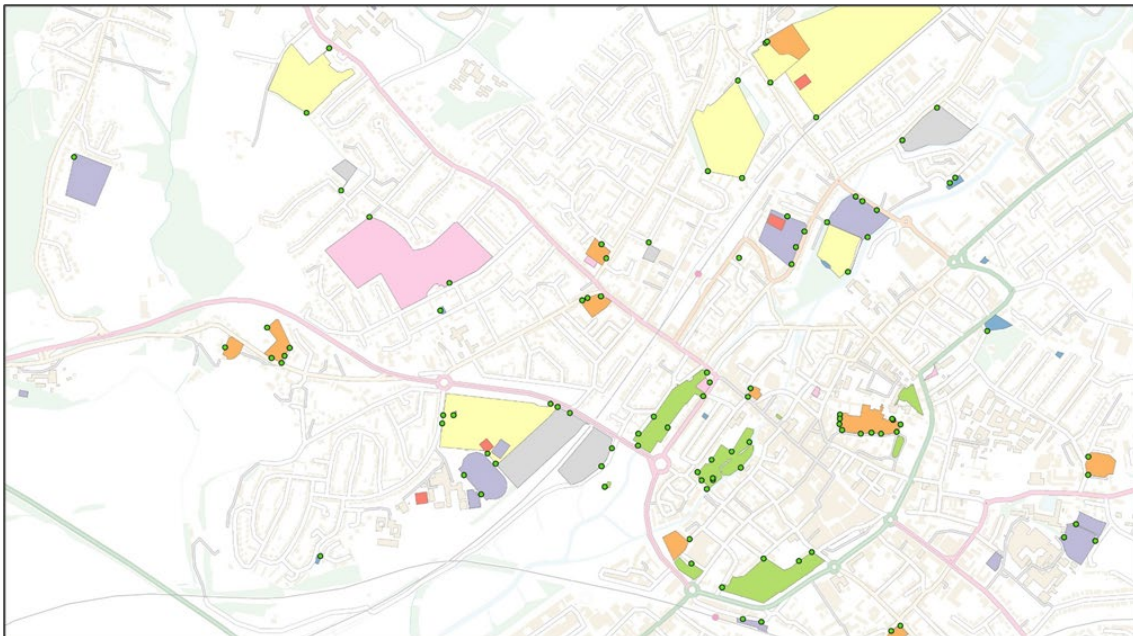Each feature type has associated attribution (see Section 2.2).

Figure 1: OS Open Greenspace Site polygons and Access Points overlaid on an OS OpenMap – Local basemap.

2.2 Attribution

2.2.1 Greenspace Sites

Greenspace Site features are in the form of a geolocated polygon layer that carries the following attributes:

- **ID** – The unique identifier of the Greenspace Site. The ID is generated for each release and will change between versions of the product.

- **Distinctive Name** – The name of the Greenspace Site. Up to four distinctive name attributes can be populated if a site is known locally by more than one name. Distinctive name attributes are populated in numerical order and only where relevant.

  For many greenspaces, this relies on information from local experts who have been encouraged to share relevant information with Ordnance Survey. These names are expected to be useful in gathering more information about a site, such as its opening times or ownership information.

  Distinctive names are populated where they can be sourced from relevant existing data holdings during product creation. As a result, only a limited number of records will contain Distinctive Name attribution; the population of this attribute will improve over time.

- **Function** – The purpose of the Greenspace Site, that is, what the site is used for. Functions are determined from a specific greenspace list and only sites that fall within the list are included. OS Open Greenspace includes the following functions:

  - Allotments Or Community Growing Space
  - Bowling Green
  - Cemetery
  - Religious Grounds (Populated where there is a significant amount of accessible greenspace; this is defined as more than 500m² of natural surface within the site.)
  - Golf Course
  - Other Sports Facility
  - Play Space
  - Playing Field (Only playing fields that are used by the public at least some of the time are included in the product. School fields, for example, which are entirely enclosed and used only by the school are not included.)
  - Public Park Or Garden
  - Tennis Court

  Note: Sports stadiums and grounds which are used primarily for spectating rather than participating in sports are not included in OS Open Greenspace.

  More detail and descriptions of these Functions can be found in the product's *Technical Specification*.

2.2.2   Access Points

Access Point features come in the form of a geolocated point layer that carries the following attributes:

* **ID** – The unique identifier of the Access Point.

* **Reference to Greenspace Site** – The unique identifier of the Greenspace Site to which the Access Point relates.

* **Access Type** – The type of access permitted at the Access Point. Access Types are determined from a specific list and only Access Points which fall within the list are included. The following Access Types are permitted:

  * Motor Vehicle
  * Motor Vehicle and Pedestrian
  * Pedestrian

  More detail on Access Types can be found in the product's *Technical Specification*.

2.3   Nested sites

Where more than one Function is identified within a greenspace, nesting is used. This means that where sites overlap, or where a whole site is contained within a larger site, they are published as separate polygons that overlap one another. For example, in the image below, the whole park including the play areas (green polygon) is captured as one site. The play areas (yellow polygons) are captured separately, and these sites overlap with the park.

Figure 2: Satellite image of a Greenspace Site with two nested sites.

Where a nested site has the same Function attribute as the main site, it is merged into the main site, and not shown as separate; this avoids duplicating the greenspace function of sites.

2.4 Generalisation

The detail within OS Open Greenspace is automatically generalised using Ordnance Survey large-scale data. Generalisation is the process of reducing the complexity of the data whilst maintaining the key elements and characteristics of the features. OS Open Greenspace generalisation applies in two ways:

- **Greenspace Site** – All Greenspace Sites are generalised to achieve consistency throughout the product. No sites have been removed during this process.

- **Access Point** – Access Points are not moved by the generalisation process and remain in their actual location, allowing them to be used appropriately with large-scale data when required.

2.5 Coordinate reference system

OS Open Greenspace uses 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.

The OS website has two helpful guides to coordinate reference systems in Great Britain:

- *'A Guide to Coordinate Systems in Great Britain'* (https://www.ordnancesurvey.co.uk/documents/resources/guide-coordinate-systems-great-britain.pdf)

- *'Beginner's Guide to Grid References'* (http://www.ordnancesurvey.co.uk/resources/maps-and-geographic-resources/the-national-grid.html)

3.   Data creation

3.1   Geometry

- **Greenspace Sites** – These polygons are identified using topographic and textual information contained within Ordnance Survey large-scale databases. Identified Greenspace Sites are then generated using the visible physical boundaries surrounding individual sites, for example, where a fence or wall clearly surrounds a park.

- **Access Points** – Most Greenspace Sites include Access Points, but a limited number do not. Certain situations make it impossible to capture access into a site:

  - In open areas, such as a play area in a park, there is often no physical boundary limiting access to specific places, and we therefore do not capture a specific Access Point.

  - It may not be possible to identify an Access Point due to the limits of data capture, such as an entrance obscured by trees.

  Where this is the case, if we are informed about and can verify additional Access Points, we endeavour to include them.

  It is also possible for Access Points to occur within larger polygons where they indicate access to a nested polygon within.

Note: Inclusion of an Access Point in this product does not guarantee public access, and users need to be aware of this when using Access Point data.

3.2   Attribution

In the extraction and creation of the OS Open Greenspace features, attribution is generated from the detailed source data and existing site data.

3.3   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 Open Greenspace is completed using our existing topographic databases and aerial imagery. As such, the quality of the data is constrained to what can be achieved with this approach. For example, where access into a site is obscured (for example, it is situated under dense tree canopy) 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 12 months of such verification.

We have processes in place to allow expert users to feed back on the product and allow us to act on potential omissions and improvements to content, subject to accuracy checks. Over time, it is anticipated that this community will assist us in further improving the content in the two OS Greenspace products.

3.4 Selection of Greenspace Sites

The Greenspace Sites included in this product are the sites that the public can use for recreational activities and outside leisure. Activities include but are not limited to sports, walking, exercise, commuting, and exploration.

Inclusion of a Greenspace Site in this product does not guarantee public access to it, and users should be aware of this when using the data. Sites may have restricted opening times or charges which OS is unable to publish information about. Some sites may charge for use of the facility, area, or parking.

Some criteria have been applied in the creation of this product to ensure that the most appropriate sites are included. Sites are only included where a definable boundary for an individual site can be depicted and where the entirety of the defined site is a greenspace. Large rural areas such as National Parks do not fall within this definition.

4.   Product supply

4.1   Available formats for the product

OS Open Greenspace is available in the following formats:

- Geography Markup Language (GML) 3.2.1

- Esri shapefile

- GeoPackage

- Vector tiles (MBTiles)

4.2   Coverage and file sizes

Coverage is all of Great Britain (GB).

For the GML and Esri shapefile formats, you can optionally set a custom area corresponding to one or more 100 km² tiles of the OS grid reference.

Note: If you select adjacent 100 km² tiles that include features that cross the tile edge, the whole feature is included in both tiles. You may therefore need to deduplicate your data, depending on its application.

GML
- A zipped file comprising a national set.

- The size of the zipped file is approximately 34.15MB.

- The zipped file contains one GML file.

- The data is not encrypted.

Esri shapefile
- A zipped file comprising a national set.

- The size of the zipped file is approximately 33.87MB.

- The zipped file contains up to eight shapefiles.

- The data is not encrypted.

GeoPackage
- A zipped file comprising a single national GeoPackage file.

- The size of the zipped file is approximately 57.65MB.

- The data is not encrypted.

Vector tiles

- A zipped file comprising a single national MBTiles file.

- The size of the zipped file is approximately 76.41MB.

- The MBTiles file contains a full set of national vector tiles.

- The data is not encrypted.

4.3 Product update schedule

OS Open Greenspace is updated bi-annually in April and October.

4.4 Product supply mechanism

OS Open Greenspace is supplied as an online download and is available without registration from the OS Data Hub Open Greenspace download page (https://osdatahub.os.uk/downloads/open/OpenGreenspace).

The data is available as a Full Supply only, that is, Change-Only Updates (COUs) are not available.

Annex A: Product support links

Guides

You can find additional information and documentation about the OS Open Greenspace product 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).

We recommend you read the following guides:

- *OS Open Greenspace – Technical Specification*

- *OS Open Greenspace – Getting Started Guide*

- *Getting Started with GeoPackage*

- *Getting Started with Vector Tiles*

Stylesheets

Predefined stylesheets for OS Open Greenspace are available for download from the Ordnance Survey OS-Open-Greenspace-stylesheets GitHub repository (https://github.com/OrdnanceSurvey/OS-Open-Greenspace-stylesheets).

To download a zip containing all stylesheets, navigate to *Code > Download Zip.*