# SnowDrift

API DOCUMENTATION

V1.0

1. **Searching for Sites by ID/Name/Lat & Long etc**

There are a number of Endpoints that allow you to search for UK Sites for which Forecast, Stats, and Observational data may exist; these endpoints consist of various ways in which the sites are categorized in the database structure, such as: by region, unitary auth area, country, and continent.

**STABLE Finding a Site by its Site-ID**  
GET: /weather/sites/find-site-where-siteid/{siteid}/  
POST: /weather/sites/find-site-where-siteid/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it does not exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| siteid | INTEGER | 11 | 23452 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |

**STABLE Finding Sites where its Name is LIKE Word/Text**  
GET: /weather/sites/find-all-sites-where-name-like/{nametext}/{resultsimit}/  
POST: /weather/sites/find-all-sites-where-name-like/

**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it does not exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| nametext | TEXT | 255 | Northampton |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 9 |
| regionname | TEXT | 255 | North East |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 2321 |
| sitename | TEXT | 255 | Northampton |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| elevation | FLOAT (###.#) | 3,1 | 120.4 or 27.9 or 3.4, but not 2432.3 |
| latitude | FLOAT (##.####) | 2, 4 | 52.3444 |
| longitude | FLOAT (##.####) | 2, 4 | -2.4342 |

**STABLE Finding Sites by the Unitary-Auth-Area-ID**  
GET: /weather/sites/find-all-sites-where-unitary-auth-area-id/{uaaid}/{resultslimit}/  
POST: /weather/sites/find-all-sites-where-unitary-auth-area-id/  
  
**USAGE**

This query will return a JSON object listing the sites in the region– if any exist – or blank if none exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| uaaid | INTEGER | 11 | 4 |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |

**DEVELOPMENT Finding Sites by the Unitary-Auth-Area Name LIKE Word/Text**  
GET: /weather/sites/find-all-sites-where-unitary-auth-area-name-like/{nametext}/{resultslimit}/  
POST: /weather/sites/find-all-sites-where-unitary-auth-area-name-like/  
  
**USAGE**This query will return a JSON object listing the sites in the region– if any exist – or blank if none exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| nametext | TEXT | 255 | Northampton |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |

**STABLE Finding Sites by the Region-ID**  
GET: /weather/sites/find-all-sites-where-regionid/{regionid}/{resultslimit}/  
POST: /weather/sites/find-all-sites-where-regionid/  
  
**USAGE**This query will return a JSON object listing the sites in the region– if any exist – or blank if none exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 5 |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |

**DEVELOPMENT Finding Sites by the Region Name LIKE Word/Text**  
GET: /weather/sites/find-all-sites-where-region-name-like/{nametext}/{resultslimit}/  
POST: /weather/sites/find-all-sites-where-region-name-like/  
  
**USAGE**This query will return a JSON object listing the sites in the region– if any exist – or blank if none exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| nametext | TEXT | 255 | North |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |

**STABLE Finding Sites within X Distance of Latitude/Longitude**

GET: /weather/sites/find-all-sites-where-within-distance-of/{latitude}/{longitude}/{distance}/{resultslimit}/  
POST: /weather/sites/find-all-sites-where-within-distance-of/  
  
**USAGE**This query will return a JSON object listing the sites in the region– if any exist – or blank if none exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| latitude | FLOAT (###.####) | 3, 4 | 52.5233 |
| longitude | FLOAT (###.####) | 3, 4 | -2.4588 |
| distance (miles) | FLOAT (###.#) | 3, 1 | 150.9, 23.6, 9.7, or 0.7 |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 4 |
| regionname | INTEGER | 11 | 9 |
| uaaid | INTEGER | 11 | 12 |
| uaaname | TEXT | 255 | Northamptonshire |
| siteid | INTEGER | 11 | 25 |
| sitename | TEXT | 255 | Northampton General Hospital |
| countryid | INTEGER | 11 | 2 |
| countryname | TEXT | 255 | ENGLAND |
| continent | TEXT | 255 | EUROPE |
| elevation | FLOAT (###.#) | 3, 1 | 130.6 |
| latitude | FLOAT (###.####) | 3, 4 | 52.4522 |
| longitude | FLOAT (###.####) | 3, 4 | -2.8874 |
| distance | FLOAT (###.#) | 3, 1 | 250.0, 89.7, 5.6, or 0.7 |

1. **Searching for Regions / Unitary Auth Areas**

There are a number of Endpoints that allow searching for Regions and Unitary Auth Areas based on some of the parameters they may hold in the database structure, such as: ID, name, and how many sites belong to that area.

**DEVELOPMENT Finding a Region by its ID**  
GET: /weather/regions/find-region-where-regionid/{regionid}/  
POST: /weather/regions/find-region-where-regionid/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it does not exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 3 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 3 |
| code | TEXT | 4 | nw |
| name | TEXT | 255 | North West England |
| sites\_in\_region | INTEGER | 11 | 13 |

**DEVELOPMENT Finding Regions where Name is LIKE Word/Text**  
GET: /weather/regions/find-all-regions-where-name-like/{nametext}/{resultsimit}/  
POST: /weather/regions/find-all-regions-where-name-like/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it does not exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| nametext | TEXT | 255 | North |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| regionid | INTEGER | 11 | 3 |
| code | TEXT | 4 | nw |
| name | TEXT | 255 | North West England |
| sites\_in\_region | INTEGER | 11 | 13 |

**DEVELOPMENT Finding a Unitary Auth Area by its ID**  
GET: /weather/uaa/find-unitary-auth-area-where-uaaid/{uaaid}/  
POST: /weather/uaa/find-unitary-auth-area-where-uaaid/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it does not exist.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| uaaid | INTEGER | 11 | 23452 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| uaaid | INTEGER | 11 | 3 |
| name | TEXT | 4 | nw |
| sites\_in\_uaa | INTEGER | 11 | 13 |

**DEVELOPMENT Finding Unitary Auth Areas where Name is LIKE Word/Text**  
GET: /weather/uaa/find-all- unitary-auth-areas-where-name-like/{nametext}/{resultsimit}/  
POST: /weather/uaa/find-all- unitary-auth-areas-where-name-like/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it doesn’t.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| nametext | TEXT | 255 | Northamptonshire |
| resultslimit | INTEGER | 11 | 250 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| uaaid | INTEGER | 11 | 3 |
| name | TEXT | 4 | nw |
| sites\_in\_uaa | INTEGER | 11 | 13 |

1. **Forecast Datasets**

There are a number of Endpoints that provide datasets for Sites/Regions/Unitary Auth Areas/Geolocation, and all of these endpoints produce JSON responses.

**STABLE Finding Three-Hourly Slot Forecasting for Specific Site**  
GET: /weather/forecast/find-three-hour-forecast-for-siteid/{siteid}/  
POST: /weather/forecast/find-three-hour-forecast-for-siteid/  
  
**USAGE**This query will return a JSON object of the requested site – if it exists – or a blank result if it doesn’t.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| siteid | INTEGER | 11 | 25 |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Ouput Notes**

This API endpoint outputs an array of objects – each object is a 3 hour timeslot in one of the next 5 days, so there can be 40 objects. Each object (time slot) contains the below fields.

**Output Fields**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FIELD** | **WHAT IS?** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| datetime |  | DATE & TIME | 20 | 2018-02-16 03:00:00 |
| wid | Weather Type ID | INTEGER | 11 | 7 |
| weathertype | Weather to Expect | TEXT | 255 | Fog |
| t | Temp C | FLOAT (###.#) | 3, 1 | 23.6 |
| f | Feels-Like Temp C | FLOAT (###.#) | 3, 1 | 12.6 |
| s | Wind Speed MPH | FLOAT (###.#) | 3, 1 | 25.6 |
| g | Wind Gusts MPH | FLOAT (###.#) | 3, 1 | 30.8 |
| d | Wind Direction | TEXT | 4 | 3 |
| h | Humidity % | FLOAT (###.#) | 3, 1 | NNW |
| p | Precipitation Chance % | FLOAT (###.#) | 3, 1 | 54.9 |
| u | UV Index | INT | 11 | 3 |
| vdcode | Visibility ID | TEXT | 4 | GO |
| vdname | Visibility Conditions | TEXT | 255 | Good – Between 10-20km |
| updated | When it was last updated from Met Office API | DATE & TIME | 20 | 2018-02-16 16:45:03 |

1. **Authentication and Keys**

Accessing the API endpoints requires two keys that are issued with a fixed expiry date, these are appkey and consumerkey. Using the below endpoints you can check the validity of the keys individually, or together.

**DEVELOPMENT Check Key Validity**  
GET: /weather/auth/check-key-validity/{appkey}/{consumerkey}/  
POST: /weather/auth/check-key-validity/

**IMPORTANT:** *This API endpoint is rate limited.*

This query will return a JSON object of the requested keys’ expiry date – if it exists – or a blank result if they do not exist in the system.

**Input Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| appkey | TEXT | 45 | 78g9av876485648ohvituhzkc7564756ca9ga4 |
| consumerkey | TEXT | 45 | 9b8uitdfeI878eq7r67fjhk73v5ioa67cuitk6fcsg |

**Output Fields**

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **FORMAT** | **MAX LENGTH** | **EXAMPLE** |
| expires | DATE & TIME | 20 | 2018-02-16 12:03:01 |