

SmartDublin Flooding Open Data API Specifications

Document History

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Table of Contents

SmartDublin Flooding Open Data API Specifications	1
Overview	3
API: Dunraven historical data.....	4
API: Dunraven last snapshot – a list of Dunraven’s monitors’ latest readings	5
API: DCC historical data	6
API: DCC Last Snapshot – a list of DCC's monitors’ latest readings	8
API: Pervasive Nation historical data	9
API: Pervasive Nation Last Snapshot – a list of Pervasive Nation's monitors’ latest readings	10

Overview

The purpose of this API is to allow third parties to access the flooding data.

There are three sources of flooding data: Pervasive Nation, Dunraven & EMR.

- Pervasive Nation provides a log of rainfall events across Dublin city.
- Dunraven provides a log of water levels.
- DCC provides a log of rain events, water levels & weather information.

API: Dunraven historical data

API URL: /dunraven/historical/

Data Limit: max range 1 day (under review)

Request Methods Allowed: GET

Request Parameters:

Parameter	Required	Description	Parameter Type	Data Type
dfrom	*	Start date, format: YYYYMMDDHHmm, min value: 201904241500	query	string
dto	*	Finish date, format: YYYYMMDDHHmm	query	string

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
[
  {
    "DateLastReading": "2020-02-17T08:42:32",
    "Name": "Tolka, Cardiff's Bridge",
    "Ullage": 63
  },
  {
    "DateLastReading": "2020-02-17T08:42:32",
    "Name": "Tolka, Cardiff's Bridge",
    "Ullage": 63
  },
  ...
  {
    "DateLastReading": "2020-02-17T08:59:03",
    "Name": "Elm Park Stream, Merrion Road",
    "Ullage": 116
  }
]
```

API: Dunraven last snapshot – a list of Dunraven’s monitors’ latest readings

API URL: /dunraven/lastsnapshot/

Request Methods Allowed: GET

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
[
  {
    "DateLastReading": "2020-02-17T09:42:31",
    "Name": "Tolka, Cardiff's Bridge",
    "Serial": "204680",
    "Ullage": 64
  },
  {
    "DateLastReading": "2020-02-17T10:03:44",
    "Name": "Liffey, Chapelizod",
    "Serial": "2046BD",
    "Ullage": 79
  },
  ...
  {
    "DateLastReading": "2020-02-17T09:59:05",
    "Name": "Elm Park Stream, Merrion Road",
    "Serial": "204DB5",
    "Ullage": 116
  }
]
```

API: DCC historical data

API URL: /emr/historical/

Request Methods Allowed: GET

Data Limit: max range 1 day (under review)

Request Parameters:

Parameter	Required	Description	Parameter Type	Data Type
dfrom	*	Start date, format: YYYYMMDDHHmm, min value: 201904241500	query	string
dto	*	Finish date, format: YYYYMMDDHHmm	query	string

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
{
  "Levels": [
    [
      {
        "area": "Rory O'More",
        "level_m": 2.2955,
        "timestamp": "2020-02-26T09:00:00"
      },
      ...
    ]
  ],
  "Rain": [
    [
      {
        "area": "Ballymun",
        "rain_mm": 0,
        "timestamp": "2020-02-26T09:00:00"
      },
      ...
    ]
  ],
  "Weather": [
    [
      {
        "area": "Ballymun",
        "dew_point_°C": 1,
        "pressure": 998,
        "rel_humidity_%": 90,
        "temperature_°C": 2,
        "timestamp": "2020-02-26T09:00:00",
        "wind_direction_°N": 283.5,
        "wind_speed_m/s": 4.50002
      },
      ...
    ]
  ]
}
```

... }
]]
}

API: DCC Last Snapshot – a list of DCC's monitors' latest readings

API URL: /emr/lastsnapshot/

Request Methods Allowed: GET

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
{
  "Levels": [
    {
      "area": "Rory O'More",
      "level_m": 2.141,
      "timestamp": "2020-02-27T06:59:00"
    },
    ...
  ],
  "Rain": [
    {
      "area": "Ballymun",
      "rain_mm": 0,
      "timestamp": "2020-02-27T02:49:00"
    },
    ...
  ],
  "Weather": [
    {
      "area": "Ballymun",
      "dew_point_°C": 0,
      "pressure": 993,
      "rel_humidity_%": 95,
      "temperature_°C": 1,
      "timestamp": "2020-02-27T06:59:00",
      "wind_direction_°N": 299,
      "wind_speed_m/s": 1
    },
    ...
  ]
}
```

API: Pervasive Nation historical data

API URL: /pn/historical/

Data Limit: max range 1 day (under review)

Request Methods Allowed: GET

Request Parameters:

Parameter	Required	Description	Parameter Type	Data Type
dfrom	*	Start date, format: YYYYMMDDHHmm, min value: 201904241500	query	string
dto	*	Finish date, format: YYYYMMDDHHmm	query	string

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
[
  {
    "Device ID": "0018b2000000090f",
    "Location": "Rainfall #015 - Bannow Road - 0.2",
    "Measure in mm": 1593,
    "Timestamp": "2020-02-17T09:07:22"
  },
  {
    "Device ID": "0018b2000000090f",
    "Location": "Rainfall #015 - Bannow Road - 0.2",
    "Measure in mm": 1593,
    "Timestamp": "2020-02-17T09:37:24"
  },
  ...
  {
    "Device ID": "70b3d599e0010067",
    "Location": "Rainfall #030 - WoodQuay - 0.2",
    "Measure in mm": 39,
    "Timestamp": "2020-02-17T09:40:59"
  }
]
```

API: Pervasive Nation Last Snapshot – a list of Pervasive Nation's monitors' latest readings

API URL: /pn/lastsnapshot/

Request Methods Allowed: GET

Response Format: application/json

HTTP Status Code	Reason
200	success
401	API key is missing or invalid

Response example:

```
[
  {
    "Device ID": "0004a30b001abda4",
    "Location": "Rainfall #001 - Bannow Road - 0.2",
    "Measure in mm": 0,
    "Timestamp": "2020-02-17T10:19:44"
  },
  {
    "Device ID": "0004a30b001c5703",
    "Location": "Rainfall #004 - Shrewsbury PS - 0.3",
    "Measure in mm": 0,
    "Timestamp": "2020-02-17T07:06:48"
  },
  ...
  {
    "Device ID": "70b3d599e0010069",
    "Location": "Rainfall #032 - Rathmines - 0.2",
    "Measure in mm": 0,
    "Timestamp": "2020-02-17T10:47:14"
  }
]
```