



BGS INFORMATICS

User Guide: BGS GeoCoast Erosion UPRN data

Open report OR/26/031



British
Geological
Survey

BRITISH GEOLOGICAL SURVEY

BGS INFORMATICS

OPEN REPORT OR/26/031

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User Guide: BGS GeoCoast Erosion UPRN data

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BRITISH GEOLOGICAL SURVEY

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The London Information Office also maintains a reference collection of BGS publications, including maps, for consultation.

We publish an annual catalogue of our maps and other publications; this catalogue is available online or from any of the BGS shops.

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The British Geological Survey is a component body of UK Research and Innovation.

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Foreword

The British Geological Survey (BGS) is a world-leading geological survey, focusing on public-good science for Government and research to understand earth and environmental processes.

We are the UK's premier provider of objective and authoritative geoscientific data, information and knowledge to help society to:

- use its natural resources responsibly
- manage environmental change
- be resilient to environmental hazards

We provide expert services and impartial advice in all areas of geoscience. As a public sector organisation, we are responsible for advising the UK Government on all aspects of geoscience as well as providing impartial geological advice to industry, academia and the public. Our client base is drawn from the public and private sectors both in the UK and internationally.

The BGS is a component body of the Natural Environment Research Council (NERC), part of UK Research and Innovation (UKRI).

DATA PRODUCTS

BGS produces a wide range of data products that align to Government policy and stakeholder needs. These include baseline geological data, engineering properties and geohazards datasets. These products are developed using in-house scientific and digital expertise and are based on the outputs of our research programmes and substantial national data holdings.

Our products are supported by stakeholder focus groups, identification of gaps in current knowledge and policy assessments. They help to improve understanding and communication of the impact of geo-environmental properties and hazards in Great Britain, thereby improving society's resilience and enabling people, businesses, and the government to make better-informed decisions.

Acknowledgments

This report is the published product of a study by the British Geological Survey (BGS) to produce digital datasets depicting the range of geoproperties and processes prevalent around the coastline and potential risks due to natural ground movement across Great Britain via Unique Property Reference Number (UPRN) data. The methods used to derive and process these data into UPRN format were determined by the following BGS staff (in alphabetical order):

Clive Cartwright, Rahul Chahel, Russell Lawley, Kathryn Lee (project leader)

Many individuals in BGS have contributed to the project. This assistance has been received at all stages of the study. In addition to the collection of data, many individuals have freely given their advice and provided expert knowledge. Of the many individuals who have contributed to the project we would particularly like to thank the following: Lauren Hart and Edd Lewis.

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Summary

The British Geological Survey (BGS) is integrating Unique Property Reference Numbers (UPRNs), issued by Ordnance Survey, with its geohazard datasets to meet growing stakeholder demand for property-specific, easily shareable data. UPRNs are increasingly used in sectors such as conveyancing, insurance, and local government, but their simplicity as point data poses challenges for spatial analysis. To address this, the BGS has developed robust methodologies to assign geological information (spatially variable across a site) to UPRNs (a single representative point).

The data is provided in GIS and CSV formats to support users who prefer non-spatial data. It also tackles data gaps where UPRNs lack spatial building footprints. This work supports the broader adoption of UPRNs by local authorities and value-added resellers, enhancing accessibility and usability of geohazard data for a wide range of users.

This user guide provides the information required to enable the reader to understand and use these data. This document accompanies the release of the **BGS GeoCoast Erosion UPRN** dataset.

For detailed information on the underpinning BGS GeoCoast Product suite, please consult the User Guide for the BGS GeoCoast (reference OR/21/001).

Further information on all the digital data provided by the BGS can be found on our website at <http://www.bgs.ac.uk/products/home.html> or by contacting:

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1 Introduction

Developed by the British Geological Survey (BGS), the utilisation of Unique Property Reference Numbers (UPRNs), issued by the Ordnance Survey, has emerged in response to a growing stakeholder demand for rapid information sharing about specific locations. This requirement is particularly prominent in sectors such as conveyancing, insurance, and local government, where UPRNs are already widely used and, in many cases, mandated. Aligning BGS datasets with UPRNs will improve interoperability, simplify data integration, and enable more efficient access to geological information across these sectors.

1.1 BACKGROUND TO THE DATASET

The BGS GeoCoast Erosion UPRN dataset enables users to assess the proximity of property assets associated with a Unique Property Reference Number (UPRN) to coastlines susceptible to erosion. As many users are unable to work directly with geospatial formats and prefer CSV-based outputs, there is increasing demand for non-spatial data analytics. UPRNs support this shift by providing a simple and consistent mechanism for accessing property-level information.

To meet this demand, BGS will continue to provide outputs in GIS formats, along with options to convert these to CSV for ease of integration. A key focus of the dataset development has been addressing data gaps; particularly cases where UPRN records indicate a property exists, but no corresponding spatial footprint is available in the input topological data.

The BGS GeoCoast Erosion UPRN dataset reflects growing stakeholder requirements for rapid, location-based information sharing, and aligns with the wider adoption of UPRNs by local authorities, value-added resellers, and other data users. The product has been prioritised in response to stakeholder requests and the opportunity to deliver essential geohazard information to new markets. As demand for accessible, property-specific information continues to grow, UPRNs provide an efficient and scalable solution.

The UPRN output is based on underpinning data from the GeoCoast Premium product. Specifically, the erosion susceptibility data. This underpinning erosion susceptibility was generated by utilising a number of geological engineering properties of cliff sections (and low-lying deposits) around the GB coastline. Geologists assigned LEX-RCS codes to each stratigraphic unit for each cliff section. Lithology 1 is the geology at the base of the cliff or shoreline above the High-Water Line, through to Lithology 8 at the top of the cliff (where present). Geologists also assigned scores to the input datasets (BGS Civils Discontinuities, Strength, and BGS Permeability Index) based on their engineering and hydrological properties. The scores were processed through a coastal erosion susceptibility algorithm to determine a final score, normalised from 0 – 100 for erosion susceptibility. This score was then divided by equal intervals to create the 5 classes: low, low-moderate, moderate, moderate-high, high (see **Table 1**). It is these classes that have been pulled through into the UPRN format. Further details on the underpinning data can be found in the User Guide: BGS GeoCoast (BRITISH GEOLOGICAL SURVEY. 2021).

1.2 WHAT THE DATASET INCLUDES

The BGS GeoCoast product defines a set of coastal hazard classes across Great Britain. These hazard zones reflect potential erosion susceptibility and resilience to coastal processes. GeoCoast hazards may affect nearby areas without intersecting a property directly. To reflect this spatial relationship, a proximity-based method was selected within 500 metres inland from inner coastal extent coverage of the BGS GeoCoast - Erosion dataset.

Importantly, proximity is calculated from the building footprint associated with a UPRN - not the UPRN point alone - ensuring that hazard relevance is assessed relative to the full extent of the property.

UPRNs have rapidly become a key mechanism for delivering property-specific information. However, their simplicity as single point-based references create challenges when assessing spatial characteristics (such as proximity to known hazards or spatially variable hazards) which require more detailed spatial context. As a result, BGS have developed robust, repeatable methods for partitioning and assigning geological information to the UPRN register, using representative values that account for the spatial uncertainties inherent in point-based UPRN data.

The data utilised from the underpinning BGS GeoCoast package are the GeoCoast - Erosion datasets. From these data we provide 2 UPRN datasets:

- **BGS GeoCoast Erosion UPRN worst case**
The worst-case erosion susceptibility classification of the cliff or backshore deposits. This is the worst score of the full range of lithologies found within a coastal succession. More than one deposit could be recorded, especially in areas with higher cliffs.
- **BGS GeoCoast Erosion UPRN mean case**
The mean erosion susceptibility classification of the cliff or backshore deposits. This is the mean score of the full range of lithologies found within a coastal succession. More than one deposit could be recorded, especially in areas with higher cliffs.

The image below provides an example of the stack or succession of lithologies around the GB coast. In this case, the worst-case class would be 'High' and the mean would be 'moderate'.

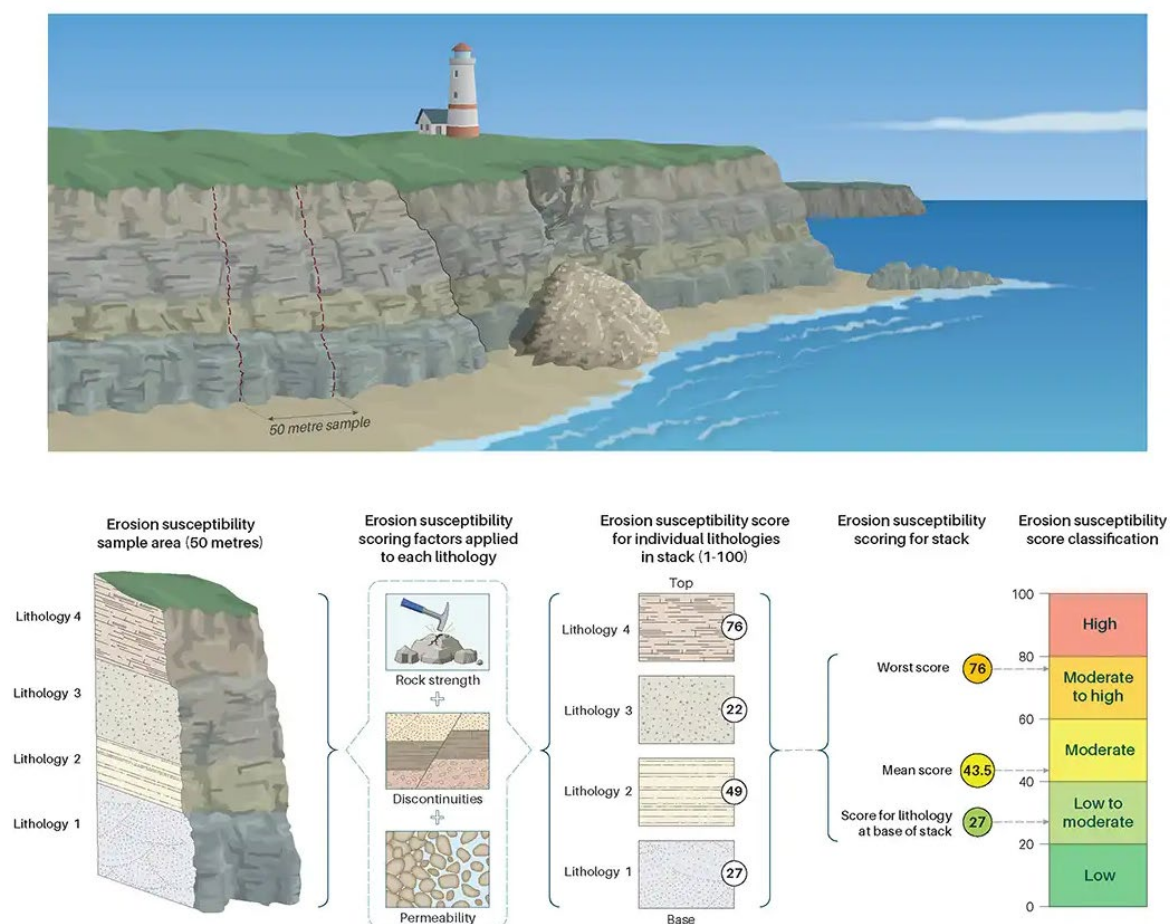


Figure 1 example of coastal lithology and classification.

Analysis of both the mean (Figure 2) and worst-case (Figure 3) coastal erosion data, as well as the closest and distance to worst-case, are provided to ensure a full picture of potential erosion hazards are conveyed. Due to the nature of complex coastal processes and convoluted coastline geometries, a simple proximity analysis might not fully convey the threats. For example, the spatially closest coastline may not be an erosive frontage however, there may be other, more erosive coasts slightly further away (within the 500 m analysed extent) which require consideration (Figure 4). This is where the CLASS_HIGH can provide additional context.

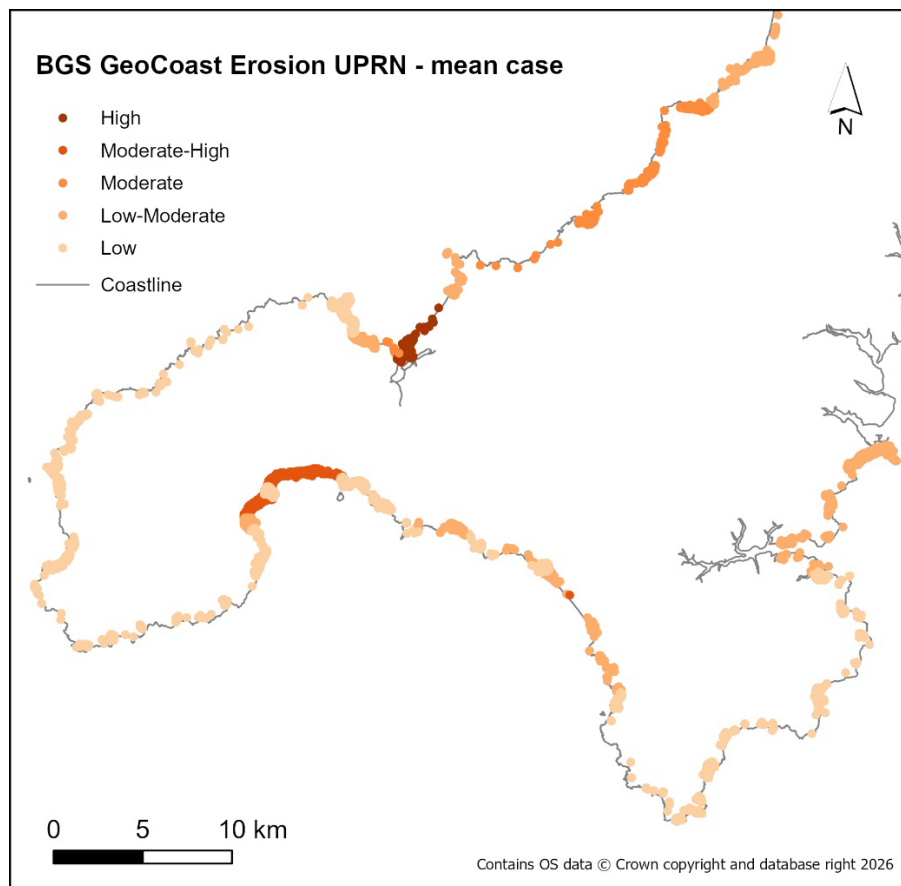


Figure 2 Example map extract showing the mean coastal erosion hazard susceptibility for UPRN's up to 500 metres from the coastline.

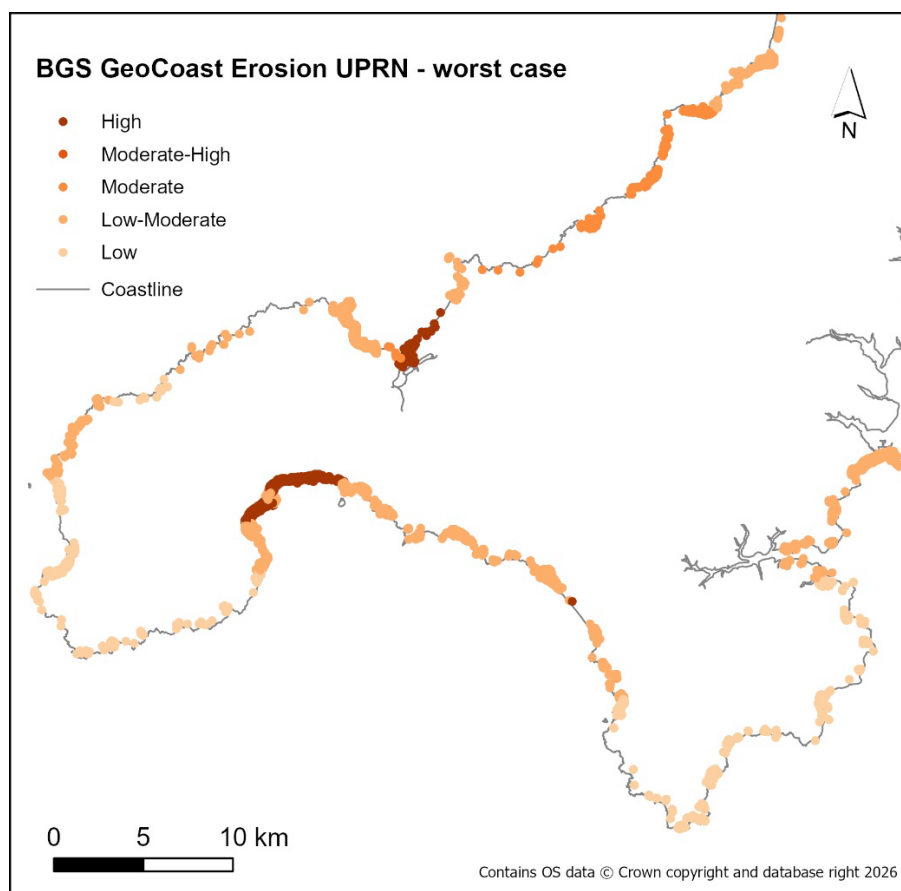
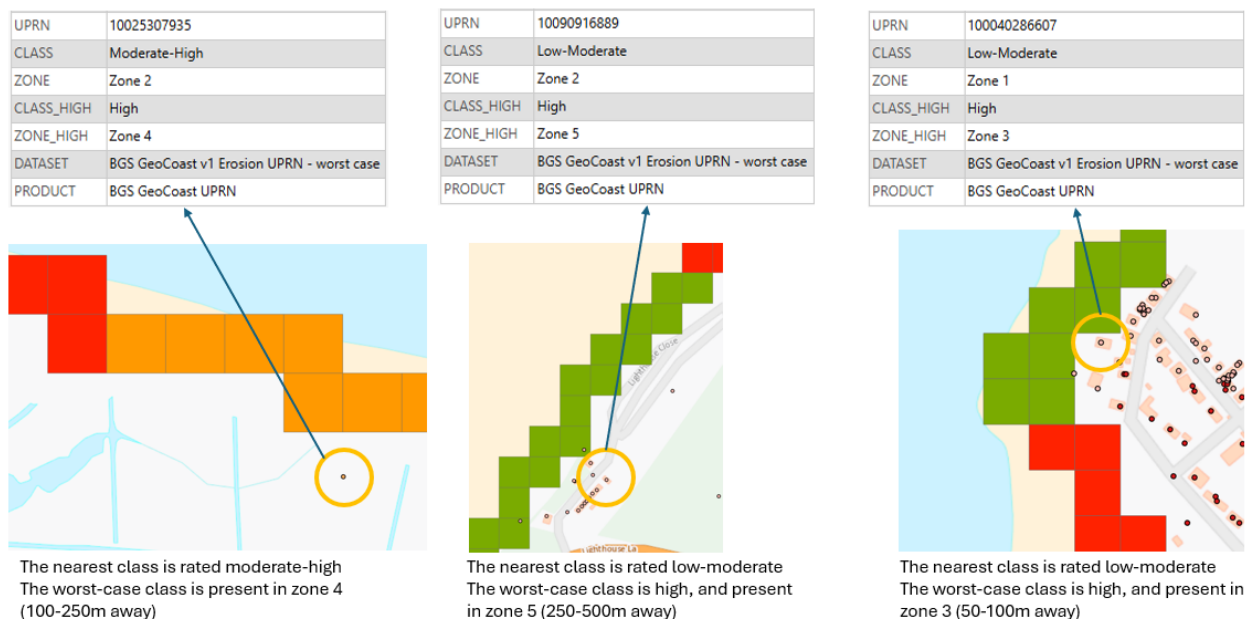


Figure 3 Example map extract showing worst case coastal erosion hazard susceptibility for UPRN's up to 500 meters from the coastline.



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Figure 4 examples of nearest class and distance to worst class. Points are the URRN dataset, grid cells are GeoCoast erosion premium data to demonstrate how the outputs are calculated.

1.3 WHY ARE THESE DATASETS USEFUL

The following section explains what this dataset offers and why it is helpful for people who need clear information about ground risks at individual properties.

1.3.1 BGS GeoCoast Erosion UPRN

The BGS GeoCoast Erosion UPRN datasets provide clear, property level information about how susceptible different locations may be to coastal change. Because the datasets focus on the natural coastline (and do not factor in existing coastal defences) they offer a realistic view of areas that could become vulnerable if those defences are not maintained in the future or if a shoreline management plan changes approach.

By linking coastal susceptibility information directly to Unique Property Reference Numbers (UPRNs), the datasets allow users to quickly see whether a specific property is located within close proximity to a coastline susceptible to erosion. The assessments are based on expert geological knowledge of cliffs and coastal materials, including their strength, composition, and how easily they may erode. This provides a dependable indication of how coastal conditions could change over time.

An indication of coastal erosion does not necessarily mean that a location will be affected by coastal processes, especially if the area has coastal defences. Such an assessment can only be made by inspection of the area by a qualified professional.

Overall, the dataset is a practical tool that supports planning and decision-making, helping users understand both average and worst-case scenarios of long-term coastal susceptibility in a simple and accessible way.

2 Methodology

2.1 OVERVIEW

The BGS GeoCoast Erosion UPRN dataset, Unique Property Reference Numbers (UPRNs) were linked to building footprints to assign GeoCoast Erosion hazard classifications, as outlined below:

Each UPRN was first matched to an associated building footprint. For buildings containing multiple UPRNs, Voronoi-based splitting was applied to generate individual coverage areas, ensuring that each UPRN received a unique spatial unit.

To ensure complete coverage where building footprints were absent, a synthetic building footprint is generated by buffering UPRN locations. The area of synthetic footprints is derived from and representative of neighbouring buildings, between residential and functional building types, i.e. functional building footprint areas will not influence the size of synthetic residential building footprints. If no applicable footprints exist within the neighbourhood of a UPRN then a standard 10m buffer is applied.

Coastal erosion information was assigned using a distance-based approach calculated from the UPRN footprint. For each footprint, the closest GeoCoast erosion susceptibility class was identified, and its distance was converted to a proximity zone. In addition, the highest-severity erosion susceptibility class occurring within 500 m was identified, together with the proximity zone corresponding to the distance to that class. This provides information on both the closest coastal erosion susceptibility and the most severe erosion susceptibility occurring within 500 m.

These outputs have been calculated for the BGS GeoCoast v1 Erosion (worst-case) and BGS GeoCoast v1 Erosion (mean-case) to provide two datasets within this product.



Figure 5 Examples of UPRN footprint processing (Left) and Voronoi-based subdivision of a building footprint containing multiple UPRNs (Right).

Only UPRNs within the defined GeoCoast coastal processing extent were included in the analysis. For each processed UPRN, proximity was calculated from the associated building footprint to the **GeoCoast erosion susceptibility polygons**, rather than from the UPRN point to the OS High Water Line or to the centroid of a GeoCoast grid cell. The closest erosion susceptibility class and its associated proximity zone were recorded, together with the highest-severity erosion susceptibility class identified within the **500 m assessment distance**. The 500 m distance defines the extent over which additional coastal erosion susceptibility is considered

and should not be interpreted as indicating that erosion susceptibility at the coastline applies continuously for 500 m inland.

Coastal inundation flooding and potential climate-change-driven changes in erosion rates are outside the scope of this dataset.

2.2 SOURCE DATASETS

The BGS GeoCoast Erosion UPRN data product consists of five data layers, which identify areas of potential geological hazard along the coastline of Great Britain. The datasets and other components used to create and validate these layers are:

2.2.1 BGS GeoCoast Erosion UPRN sources

- 1) **OS Open Unique Property Reference Number (UPRN):**
<https://www.ordnancesurvey.co.uk/products/os-open-uprn>
 - **Dataset version:** October 2025
 - **Reference md5:** 119a8373ecf584de736f941d65af291c
- 2) **OS Open Building Footprints (OS OpenMap - Local):**
<https://www.ordnancesurvey.co.uk/products/os-open-map-local>
 - **Dataset version:** April 2025
 - **Reference md5:** 19edce886bf20e505c2fd09b3ba2e023
- 3) **OS Open Unique Street Reference Number (USRN):**
<https://www.ordnancesurvey.co.uk/products/os-open-usrn>
 - **Dataset version:** August 2025
 - **Reference md5:** 02ba87a040c667cd6b921312ebcd8f34
- 4) **Coastal Erosion Susceptibility Dataset (BGS GeoCoast):**
<https://www.bgs.ac.uk/datasets/geocoast-premium/>
 - **Dataset version:** 1
- 5) **H3 Hexagonal Grid:**
<https://github.com/uber/h3-py/releases>
 - **Version:** 4.3.1

3 Technical Information

This section provides more detailed information on the technical content, the component suite of datasets provided and an explanation of each of the attributes.

3.1 SCALE

BGS GeoCoast v1 dataset are designed for use at a 1:50 000 scale, providing a ground resolution of approximately 50 m. The UPRN derivatives created from these datasets apply bespoke spatial searches to incorporate hazard classifications into UPRN point data. This approach removes the need for users to consider scale when using the data, as all UPRN records include the appropriate classification results by default.

3.2 COVERAGE

The UPRN product provides full national coverage for the coastal zone of Great Britain (excluding the Isle of Man). The BGS GeoCoast Erosion UPRN dataset specifically covers the coastline (derived from the OS Boundary-Line™ May 2019: High water polyline) and extends up to 500 m inland from the HWL. GeoCoast data focus on the seaward coastline, therefore, do not extend into estuarine environments as different processes occur.

3.3 ATTRIBUTE DESCRIPTION

The tables below show the attributes of the BGS GeoCoast Erosion UPRN datasets.

Table 1 Attributes provided within the BGS GeoCoast Erosion UPRN worst case dataset.

Attribute Field	Possible values	Description
FID	0 - 819274	A unique identifier for each polygon within the dataset ranging from 0 to 819274
UPRN	86 - 200004827916	A Unique Property Reference Number is a unique identifier assigned to every addressable location in Great Britain, by local authorities and the Ordnance Survey.
CLASS	Low Low-Moderate Moderate Moderate-High High	The worst-case GeoCoast erosion susceptibility class of the closest cliff/backshore deposits.
ZONE	Zone 1 (<=25 m) Zone 2 (25.01-50 m) Zone 3 (50.01-100 m) Zone 4 (100.01-250 m) Zone 5 (250.01-500 m)	The distance zone to the closest erosion class.
CLASS_HIGH	Low Low-Moderate Moderate Moderate-High High	The highest worst-case GeoCoast erosion susceptibility class of the cliff/backshore deposits within 500m.
ZONE_HIGH	Zone 1 (<=25 m) Zone 2 (25.01-50 m) Zone 3 (50.01-100 m) Zone 4 (100.01-250 m) Zone 5 (250.01-500 m)	The distance zone to the highest erosion class.
DATASET	BGS GeoCoast v1 Erosion UPRN Oct 2025 - worst case	Name of dataset.
PRODUCT	BGS GeoCoast UPRN	Name of product.

Table 2 Attributes provided within the BGS GeoCoast Erosion UPRN mean case dataset.

Attribute field	Possible values	Description
FID	0 - 819274	A unique identifier for each polygon within the dataset ranging from 0 to 819274
UPRN	86 - 200004827916	A Unique Property Reference Number is a unique identifier assigned to every addressable location in Great Britain, by local authorities and the Ordnance Survey.
CLASS	Low Low-Moderate Moderate Moderate-High High	The mean GeoCoast erosion susceptibility class of the closest cliff/backshore deposits.
ZONE	Zone 1 (<=25 m) Zone 2 (25.01-50 m) Zone 3 (50.01-100 m) Zone 4 (100.01-250 m) Zone 5 (250.01-500 m)	The distance zone to the closest erosion class.
CLASS_HIGH	Low Low-Moderate Moderate Moderate-High High	The highest mean GeoCoast erosion susceptibility class of the cliff/backshore deposits within 500m.
ZONE_HIGH	Zone 1 (<=25 m) Zone 2 (25.01-50 m) Zone 3 (50.01-100 m) Zone 4 (100.01-250 m) Zone 5 (250.01-500 m)	The distance zone to the highest erosion class.
DATASET	BGS GeoCoast v1 Erosion UPRN Oct 2025 - mean case	Name of dataset.
PRODUCT	BGS GeoCoast UPRN	Name of product.

3.4 DATA FORMAT

The BGS GeoCoast Erosion UPRN datasets are supplied as vector point GIS layers, with attribute data provided for each UPRN record. For ease of integration and analysis, the datasets are also available in CSV format.

Standard delivery formats include ESRI ArcGIS Shapefile (.shp) and CSV (*.csv). Additional specialist formats may be available on request, although these may incur additional processing charges.

3.5 DATASET HISTORY

Below is an outline of the data history of BGS GeoCoast Erosion UPRN datasets:

- BGS GeoCoast GB v1 Erosion UPRN Oct 2025 mean case. British Geological Survey. (Dataset) (released 2026)
- BGS GeoCoast GB v1 Erosion UPRN Oct 2025 worst case. British Geological Survey. (Dataset) (released 2026)

3.6 DISPLAYING THE DATA

3.6.1 BGS GeoCoast Erosion UPRN

It is recommended that these data should be visualized by the **WORST** and **MEAN** field using the colour scheme shown below. To ensure accessibility for individuals with visual impairments, a sequential colour ramp from the ColourBrewer 2.0 palette has been selected, which is suitable for colour-blind users.

Table 3 Colour schema for the BGS GeoCoast Erosion UPRN dataset.

Data Classification	RED	GREEN	BLUE	HEX	LOOKS LIKE
CLASS	This is the equivalent red channel colour	This is the equivalent green channel colour	This is the equivalent blue channel colour	This is the equivalent Hexadecimal value	This cell shows the colour as intended
High	166	54	3	A63603	
Moderate-High	230	85	13	E6550D	
Moderate	253	141	60	FD8D3C	
Low-Moderate	253	174	107	FDAE6B	
Low	253	208	162	FDD0A2	

4 Licencing the data

4.1 BGS LICENCE TERMS

The British Geological Survey does not sell its digital mapping data to external parties. Instead, BGS grants external parties a licence to use this data, subject to certain standard terms and conditions. In general, a licence fee will be payable based on the type and geographical extent of data, the number of users, and the duration (years) of a licence.

All recipients of a licence (potential licensees) are required to return a signed digital data licence document before authorisation for release of BGS digital data is given.

Please use the following acknowledgements when using BGS GeoCoast Erosion UPRN data dataset:

- **BGS GeoCoast Erosion UPRN** data licenced data: 'Derived from BGS Digital Data under Licence (cite your licence number) British Geological Survey® UKRI. All rights reserved.'
- **BGS GeoCoast Erosion UPRN** data: 'Contains British Geological Survey materials® UKRI [year]'

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For more information on the availability of data or to obtain a quote for licensing the data, please email digitaldata@bgs.ac.uk. For any questions related to the licence agreement or to discuss your proposed usage of the data, please email iprdigital@bgs.ac.uk.

4.2 CONTACT INFORMATION

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5 Limitations

5.1 DATA CONTENT

The BGS GeoCoast Erosion UPRN datasets look at the natural geology around the coast of Great Britain to help identify areas where the ground may be more, or less, vulnerable to natural coastal change. This means they don't include any risks linked to man-made features such as old mining activity, contaminated land, or coastal defences. Even if a sea wall or harbour wall is present, any information shown relates only to the natural ground behind the wall, not the wall itself. The datasets are created using the best and most up-to-date geological information available to BGS at the time. These data are designed to support desk-based assessments. They highlight areas where natural erosion or ground movement might be an issue, but they do not confirm that a problem will occur. The data aims to help plan adaptation or mitigation measures, before issues arise.

For any detailed or site-specific decisions, a qualified professional must visit the location and carry out a full assessment.

Coastal erosion scores focus is on seaward coast rather than estuarine.

5.2 SCALE

The data is constrained by the structure of the UPRN dataset, with hazard classifications incorporated into UPRN point records through bespoke spatial searches. This approach removes the need for users to consider scale when working with the data, as each UPRN record is assigned the appropriate hazard classification by default. However, the resulting dataset is inherently limited by the characteristics and constraints of the underlying UPRN data model and its source data.

GeoCoast erosion susceptibility information is represented using approximately **50 m grid cells associated with the coastline**, rather than as a classification attached directly to a coastline

polyline. In the UPRN processing, proximity is therefore calculated from the processed building or synthetic footprint to the **GeoCoast erosion susceptibility polygons**, rather than from the UPRN point or directly from the OS High Water Line. Consequently, the reported proximity zone represents distance to the relevant GeoCoast erosion cell (50 m grid) and should not be interpreted as an exact distance to the physical coastline.

5.3 ACCURACY AND UNCERTAINTY

- All spatial analysis has been done on the building footprints rather than just the UPRN XY locations (see Methodology Section 2), therefore there may be instances where the UPRN point is closer in proximity to a GeoCoast polygon with a different classification than indicated by CLASS. We have used this method to ensure that the whole building is taken into account rather than just one point.
- The underpinning geological maps and descriptions are accurate.
- Supporting datasets are considered accurate and reliable.
- Additional data sources (such as subsurface information, slope models) are assumed to give a realistic picture of conditions.
- Expert judgement has been applied appropriately.
- Geologists and engineering geologists have interpreted complex areas using their professional experience, especially where detailed local information is limited. Geologists have 'logged' the coast as accurately as possible and wherever local knowledge exists. Sections of coastline that are structurally geologically complex have been simplified.
- The islands of Orkney and Shetland are not covered in this version of the dataset.
- Hazard information is based on available records.

5.3.1 Specific UPRN Output Limitations and Considerations

In addition to the considerations relating to the underpinning datasets and their creation processes, users should be aware of the following limitations and considerations specific to the UPRN data and its processing:

- **Data Completeness:** Not all buildings are captured in OS Open data.
- **Hazard Resolution:** Hazard polygons are generalised; sub-building or floor-level distinctions are not possible.
- **CRS Sensitivity:** All data must be processed in the same projected CRS (EPSG:27700) to avoid geometric distortions or mismatches.
- **Dynamic Features:** Newly built properties or demolished structures may not yet appear in UPRN or building datasets and are excluded from current processing. Only data available at the time of processing will be included.
- UPRN data is based on and limited to the OS data. BGS make no edits or changes to this data. Therefore, there could be discrepancies between building footprints and mismatched point-polygon locations.
- A difference in the number of records may exist between the UPRN output and the baseline product output. This is expected, due to the processing methods required behind the creation of the UPRN point scores/classes that are attributed to the UPRN output.
- A UPRN point can be of a different class to the underpinning data, due to the predicted footprint extent encroaching on a polygon of higher/lower score.
- No data occurs where OS data points intersect areas where no geological classification is present, for example: bridges, marinas, estuaries, etc.

5.4 ARTEFACTS

- Validation of the BGS GeoCoast data product is undertaken using multiple evidence streams, including comparison against BGS internal databases, engineering data, peer-reviewed research, and expert scientific elicitation.
- Externally derived input data may contain artifacts (e.g. missing UPRN point on new builds), and data updates might lag behind the UPRN published outputs.

5.5 DISCLAIMER

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Glossary

Based on Fell et al., 2008 (developed for landslide hazards but can be translated into other hazards).

Term	Explanation
ArcGIS	Geographic information system (GIS) software for working with maps and geographic information maintained by the Environmental Systems Research Institute (ESRI).
Acceptable risk	A risk for which, for the purposes of life or work, society is prepared to accept as it is with no regard to its management. Society does not generally consider expenditure in further reducing such risks justifiable. (Fell et al., 2008)
CRS	A Coordinate Reference System, is a framework used to map and locate geographic features on, above, or below the Earth's surface.
Elements at risk	The population, buildings and engineering works, economic activities, public services utilities, infrastructure and environmental features in the area potentially affected by landslides.
Erosion	The gradual destruction and removal of rock or soil in a particular area by rivers, the sea, or the weather.
Erosion susceptibility	Susceptibility of erosion occurring at a given location. Characteristic that describes an inherent tendency, or capacity, to erode under action of wind or water.
Expert Elicitation	Essentially a scientific consensus methodology. It is often used in the study of rare / unlikely events and allows for a collective 'educated guess' by experts for the respective topic under study. It generally quantifies uncertainty of an event or phenomena that has a significant 'random' probability of occurrence
Hazard	A potentially damaging event or phenomenon with adverse impacts.
H3 Grid	H3 is an open-source, hierarchical hexagonal geospatial indexing system developed by Uber that partitions the Earth into grid cells. It supports 16 resolutions, allowing seamless zooming from large regions down to city streets.
Inundation	An overflow or flood of large amounts of water that overwhelm (in this case from seawater flooding).
Geohazard	Geological and environmental conditions, involving long and short-term processes which may lead to widespread damage. There are many different types of geohazard with different natural and artificial processes causing them to occur. All have the potential to create problems for development of the human environment and threats to the safety and well-being of people. Geohazards can develop quickly (seconds or minutes) in response to the processes that drive them, or take tens, hundreds, or thousands of years to develop to a point where they pose a danger. They are found in most parts of the world, including marine and fluvial environments.

<i>Ground Stability</i>	The potential for upward, sideways or sinking movement of the ground (natural or man-made deposits) e.g. subsidence.
<i>Lithology</i>	Rocks maybe defined in terms of their general characteristics of appearance: colour, texture and composition. Some lithologies may require a microscope or chemical analysis for the latter to be fully determined
<i>Risk</i>	The impact of a hazard on people, property or capital.
<i>Scale</i>	The relation between the dimensions of features on a map and the geographic objects they represent on the earth, commonly expressed as a fraction or a ratio. A map scale of 1/100,000 or 1:100,000 means that one unit of measure on the map equals 100,000 on the earth.
<i>Susceptibility</i>	A quantitative or qualitative assessment of the classification, volume (or area) and spatial distribution of a hazard which exists or potentially may occur in an area.

References

The British Geological Survey holds most of the references listed below and copies may be obtained via the library service subject to copyright legislation (contact libuser@bgs.ac.uk for details). The library catalogue is available at <https://envirolib.apps.nerc.ac.uk/olibcgi>.

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