

Thank you for ordering your environmental report from Groundsure. Before you read your search results as normal we wanted to explain some recent improvements that have been made to your report. We want to let you know what **ClimateIndex™** is and what it is designed to do, so we've provided some explanation below as to why we have added climate data and the **ClimateIndex™** assessment into our reports.

## What have we updated in ClimateIndex™

**£525 billion** worth of property could be written off due to climate change in the long term\*. This is due to an **801%** increase in the number of properties affected by subsidence, an **881%** increase in coastal erosion and a **195%** increase in flooding by 2070.\*\*

The Bank of England/Prudential Regulation Authority has set out their detailed plan to address climate risks in a financial context and climate change is now a mainstream risk that all UK banks are implementing into their credit risk management policies and procedures.

In September 2022, one of the UK's leading environmental law practitioners, Stephen Tromans KC, released his legal opinion on a firm's duty of care to advise residential and commercial property clients on climate risk. Based on this opinion, Groundsure have updated the guidance in our **ClimateIndex™** forward climate analysis to follow best practice advice. You can access the opinion [here](#)

The Law Society's Planning and Environment Committee is now actively reviewing the development of a climate risk practice note alongside existing environmental notes. The inclusion of **ClimateIndex™** in this report enables solicitors to become compliance-ready for these future changes now.

\* XD Analysis Report 2021

\*\* Groundsure **ClimateIndex™** modelling 2022

## About ClimateIndex™

In this report we've added our brand new **ClimateIndex™** to the cover page (**page 2**), which includes two calculations:

1. A rating of the future climate risk of the property, for 1 year, 5 years and 30 years.
2. An explanation of the variance between these ratings, to show the change between time periods.

On **page 30** you'll find a more detailed review of these calculations, including a breakdown of the different physical risks and their relative impact on the property. The physical risks used in the calculation are flooding, natural ground instability and coastal erosion.

As a result of these changes, the site plan has been moved to the second page.

## Feedback

If you have any feedback, questions or concerns, about the addition of **ClimateIndex™** into Groundsure's reports, please get in touch with us, we'd love to hear from you. We have a survey that you can fill out about the **ClimateIndex™** feature [here](#).

We are currently recruiting for our Groundsure Customer Advisory Board. Members of the board get a unique opportunity to input into Groundsure's product direction, as well as exclusive insight into our product roadmap and work in progress.

If you'd like to take part, please let us know at [feedback@groundsure.com](mailto:feedback@groundsure.com).

Sample site, Sample Street, Anytown, UK

## Key results

 **Infrastructure Identified** page 14

## For information

 **Flooding** page 7

 **Ground stability** page 12

 **Planning applications** page 27

## Also searched

 **Contaminated land liability**

 **Coal mining (CON29M)**

 **Other mining (non-coal)**

 **Radon**

 **Planning constraints**

## Groundsure IQ

Based on cost, effort or time associated with next steps to case progression



## ClimateIndex™

Our ClimateIndex™ provides a climate score for your property, and projects changes in physical and transition risks from flooding, natural ground instability and coastal erosion. Please refer to **page 30** for more detailed analysis and guidance.

**1 year**



No change

**5 years**



Minor increase

**30 years**



Minor increase

- A** No risk predicted
- B** Minor risk
- C** Minor to moderate risk
- D** Moderate risk
- E** Significant risk
- F** Severe or existential risk predicted

To save you time when assessing the report, we only provide maps and data tables of features we have identified to be of note.

You can view a full list of the information we have searched on **page 37**.

## Site Plan



## Useful contacts

London Borough of Bexley:  
<http://www.bexley.gov.uk/>  
customer.services@bexley.gov.uk  
020 8303 7777

Environment Agency National Customer  
Contact Centre (NCCC):  
enquiries@environment-agency.gov.uk  
03708 506 506

## Avista Action Alert

3

### Key results

These are findings that should be acknowledged and potentially addressed before completion of the transaction, and relate to identified risks that may have liability implications, affect insurance premiums, property values and/or a lender's willingness to lend.



### Transportation

#### Crossrail 1

The property lies within 250m of the Crossrail 1 route.



## Next steps for consideration:

- ensure structural surveys of the property consider the potential for vibration and settlement to have caused structural damage to the property
- make enquiries to the seller to determine whether a pre-construction survey was carried out at the property by Crossrail. If any damage has occurred as a result of tunnelling, a post-construction survey should be available from Crossrail
- further information on how Crossrail have managed risks to property can be found at <https://www.crossrail.co.uk/route/managing-the-effects-of-construction/>

## For information

These are findings to be aware of that do not necessarily require immediate action.



### Flooding

#### Groundwater Flooding

A risk of groundwater flooding has been identified at the site. This will be more of an issue for properties with a basement or other section below ground. Further advice on groundwater flooding has been produced by the Environment Agency and the Local Government Association and can be found at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/297421/flho0911bugi-e-e.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/297421/flho0911bugi-e-e.pdf)



### Ground stability

The property is indicated to lie within an area that could be affected by natural instability.

## Next steps for consideration:

- if a survey has been undertaken at the property that considers ground instability and no issues were found, no further action is required
- however, based on the findings of this report, the purchaser should be encouraged to consider potential instability in any future development or alteration of the ground including planting and removing trees, and regardless of the survey outcome
- if no survey has yet been undertaken, we recommend one is carried out by a suitably qualified and experienced person
- if ground instability issues have been or are subsequently identified in a survey we recommend following any advice given in the survey findings
- if the property is in an area at risk of shrink-swell subsidence and has clay drainage pipes, consideration should be given to replacing these with a modern equivalent
- if a residential property, check whether it benefits from an NHBC guarantee or other builder warranty that often covers structural issues. Please note the presence of an NHBC guarantee wouldn't change the risk assessment of this report.



## Transportation

### Railways

The property lies within 250m of an active railway.

#### Next steps for consideration:

- consider visiting the property at different times of day and night in order to gauge relative noise and vibration levels that may result from normal operations. It may also be prudent to check the operational hours for the relevant line(s) and check whether structural surveys at the property have considered the potential for vibration from trains to have resulted in property damage

## Energy

### Wind

Existing or proposed wind installations have been identified within 5km.

#### Next steps for consideration:

- use the details given in the report to find out more about the potential impacts on the property
- contact the operating company and the relevant Local Authority for further information
- visit the area in order to more accurately assess the impact this wind development would have on the property

### Solar

Existing or proposed solar installations have been identified within 5km of the property.

#### Next steps for consideration:

- use the details given in the report to find out more about the potential impacts on the property by contacting the operating company and/or Local Authority
- visit the area in order to more accurately assess the impact this solar farm would have on the property

### Power stations

One or more Power Stations have been identified within 5km of the property.

#### Next steps for consideration:

- visit the power station operator's website for further information. Many power stations have large amounts of information on their local impacts available on the operator's website
- additionally, you could contact the Air Quality team of the Local Authority which may hold additional information regarding any air quality impacts in the area
- if a nuclear installation has been identified, consider visiting <http://www.onr.org.uk/regulated-sites.htm> for further information on the site

## Projects

One or more nationally significant energy infrastructure projects has been identified within 5km of the property.

### Next steps for consideration:

- visit the National Infrastructure Planning website at <https://infrastructure.planninginspectorate.gov.uk/projects/>, where further details on nationally significant infrastructure projects, including environmental impact assessments, can be found

## Environmental summary



Environmental searches are designed to ensure that significant hazards and risks associated with this property are identified and considered alongside the investment in or purchase of a property.

Please see the Avista Action Alert on **page 3** for further advice.



### Contaminated Land

No significant concerns have been identified as a result of the contaminated land searches.

**Contaminated Land Liability** **Passed**

**Past Land Use** **Passed**

**Waste and Landfill** **Passed**

**Current and Recent Industrial** **Passed**



### Flooding

Property's overall risk assessment for river, coastal, surface water and groundwater flooding is low-moderate.

Further explanation of flood risk assessment can be seen in the Flood information on **page 37**.

**River and Coastal Flooding** **Very Low**

**Groundwater Flooding** **Moderate**

**Surface Water Flooding** **Negligible**

**Past Flooding** **Identified**

**Flood Storage Areas** **Not identified**

**FloodScore™ insurance rating**

**Very Low**

The rating is compiled by Ambiental, a leading flood risk analysis company. Please see **page 37**



### Radon

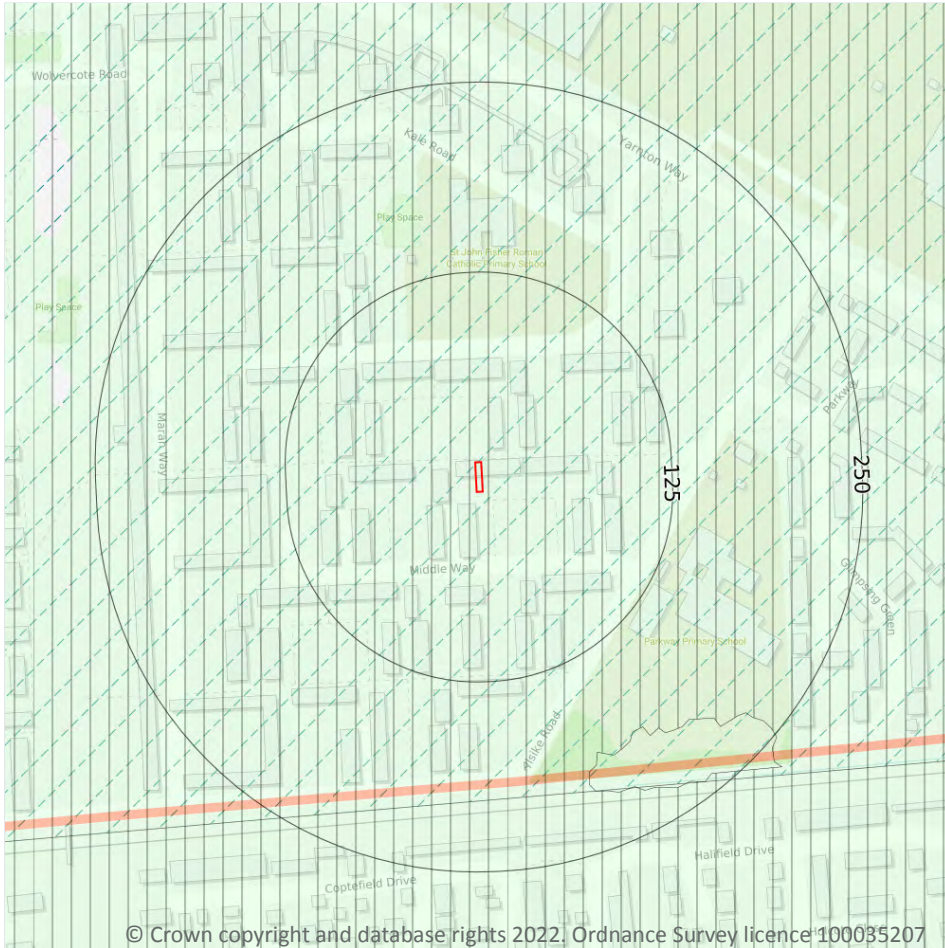
Local levels of radon are considered normal. The percentage of homes estimated to be affected by radon in your local area is less than 1%.

**Not in a radon affected area**





## Flooding / Risk of flooding from rivers and the sea



**— Site Outline**

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low

- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Proposed Flood Defence Scheme
- Flood Defences

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### Historical flood areas

Large scale flooding has been recorded in the area where the property is located in the past.

A record of a flood in previous years does not mean that an area will flood again, especially as this information does not take account of flood management schemes and improved flood defences. Equally, absence of a historic flood event for an area does not mean that the area has never flooded, but only that it doesn't appear in Environment Agency national data. This information is collated from a database showing the individual footprint of every historic flood recorded by the Environment Agency. Please note this doesn't include records held by individual local offices.

As flood risks may or may not have changed, this requires further investigation.

Distance	Direction	Date of Flood	Flood Source	Flood Cause	Type of Flood
0	on site	1953-01-31 1953-02-01	Sea	Operational failure/breach of defence	Tidal



## Flooding / Flood defences



### Areas benefiting from flood defences

The property is located in an area benefiting from flood defences. These areas would flood if the defence were not present, but may not do so as it is.

This means the area has major flood defences that may protect properties from flooding during a 1% river (fluvial) or 0.5% coastal flood event. We recommend discussing all flood defence in place as part of your discussions with insurance providers.

**Details of flood defences and any areas benefiting from these defences can be seen on the Risk of Flooding from Rivers and the Sea Map.**

## Flooding / Groundwater flooding



— Site Outline  
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

Ambiental data indicates that the property is in an area with a moderate risk of groundwater flooding. Should a 1 in 100-year groundwater flood event occur, groundwater levels may affect basement areas. Properties without basements are not considered to be at risk from this level of groundwater flooding.

Some of the responses contained in this report are based on data and information provided by the Natural Environment Research Council (NERC) or its component body British Geological Survey (BGS). Your use of any information contained in this report which is derived from or based upon such data and information is at your own risk. Neither NERC nor BGS gives any warranty, condition or representation as to the quality, accuracy or completeness of such information and all liability (including for negligence) arising from its use is excluded to the fullest extent permitted by law. Your use of the data/report/assessment constitutes your agreement to bring no claim against NERC or BGS in connection with it.

## Non-coal mining summary



### Mining records

No records relating to recorded mining areas or activity have been identified in the vicinity of the site.

<b>Mining features</b>	<b>Not identified</b>
<b>Mine plans</b>	<b>Not identified</b>
<b>Researched mining</b>	<b>Not identified</b>
<b>BritPits</b>	<b>Not identified</b>
<b>Mineral Planning Areas</b>	<b>Not identified</b>
<b>Non-coal mining areas</b>	<b>Not identified</b>
<b>Mining cavities</b>	<b>Not identified</b>
<b>Coal mining areas</b>	<b>Not identified</b>
<b>Brine areas</b>	<b>Not identified</b>
<b>Gypsum areas</b>	<b>Not identified</b>
<b>Tin mining areas</b>	<b>Not identified</b>



### Historical features

Historical mapping has identified mining features in the vicinity of the site but these are not considered to be of note.

<b>Non-coal mining</b>	<b>Identified</b>
<b>Coal and associated mining</b>	<b>Not identified</b>
<b>Industry associated with mining</b>	<b>Not identified</b>



### Geological features

No geological features indicative of mining activity or other sources of ground instability have been identified in the vicinity of the site.

<b>Artificial and made ground</b>	<b>Not identified</b>
<b>Mineral veins</b>	<b>Not identified</b>



## Ground stability summary



### Satellite monitoring

Satellite radar measurements have not detected any notable ground movement in the vicinity of the property.

#### SatSense Rating

Green

Ratings provided by SatSense Ltd, experts in analysis of InSAR ground movement data from satellite radar.



### Natural instability

Searches of natural ground stability data have identified potential ground stability risks.

See **page 13** for details and **page 4** for recommended next steps.

**Shrink-swell hazard**

Low

**Natural ground subsidence**

High

**Landslides**

Not identified

**Natural cavities**

Not identified

**Coastal erosion**

Not identified



### Infilled land

No recorded areas of infilled land or landfill have been identified in the vicinity of the site.

**Infilled land**

Not identified

**Historical landfill sites**

Not identified



### Sinkholes

No records of sinkholes have been identified in the vicinity of the property.

**Reported recent incidents**

Not identified

**Recorded incidents (BGS)**

Not identified

**Recorded incidents (Stantec)**

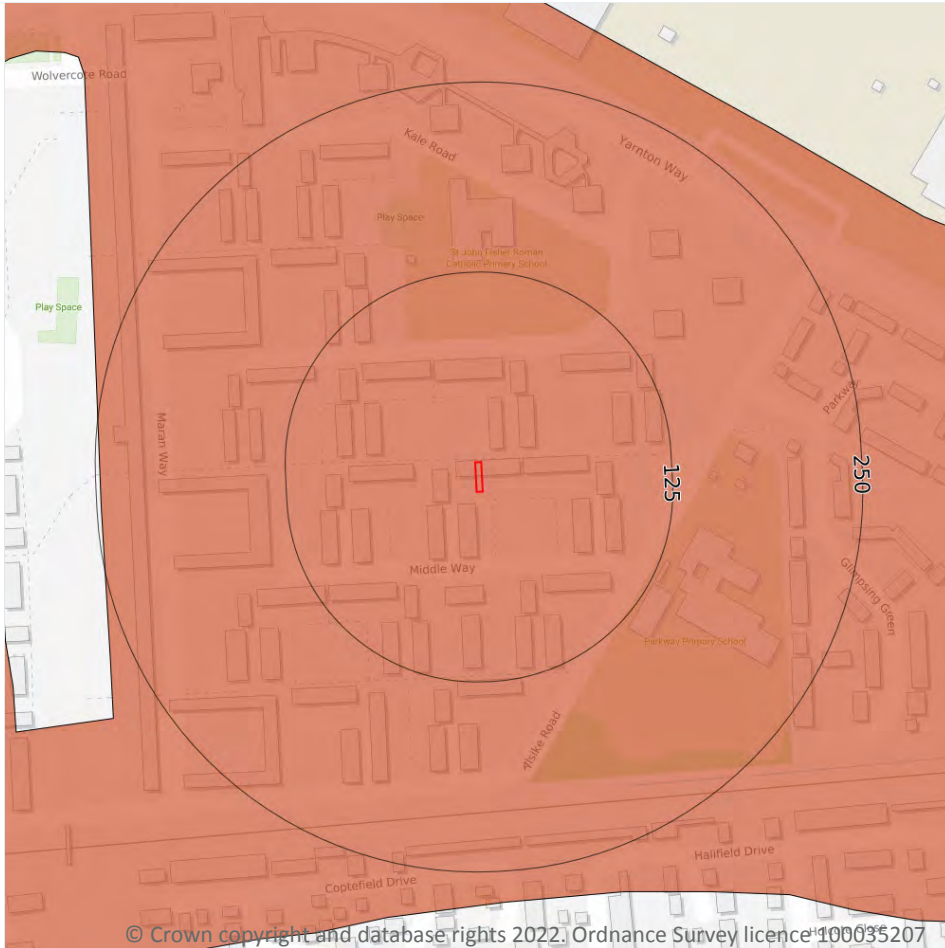
Not identified

**Historical incidents**

Not identified



## Ground stability / Compressible deposits



— Site Outline

Search buffers in metres (m)

□ Moderate

□ High

### Compressible deposits

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Location	Hazard rating	Details
On site	High	Highly compressible strata present. Significant constraint on land use depending on thickness.

This data is sourced from the British Geological Survey.

## Transportation summary



### HS2

No results for Phase 1 or Phase 2 of the HS2 project (including the 2016 amendments) have been identified within 5km of the property. However, HS2 routes are still under consultation and exact alignments may change in the future.

Visual assessments are only provided by Groundsure if the property is within 2km of Phase 1 and 2a. Other assessments may be available from HS2.

HS2 Route	Not identified
HS2 Safeguarding	Not identified
HS2 Stations	Not identified
HS2 Depots	Not identified
HS2 Noise	Not assessed
HS2 Visual impact	Not assessed

### Crossrail

Our search indicates the property is within 250 metres of the Crossrail 1 route.

Please see the Avista Action Alert on **page 3** for further advice. Additionally, see **page 15** for details of the identified issues.

Crossrail 1 Route	Identified
Crossrail 1 Stations	Not identified
Crossrail 2 Route	Not identified
Crossrail 2 Stations	Not identified
Crossrail 2 Worksites	Not identified
Crossrail 2 Safeguarding	Not identified
Crossrail 2 Headhouse	Not identified

### Other Railways

Our search indicates the property is within 250 metres of railways or railway stations, subway or DLR lines, active railways, historical railways or tunnels.

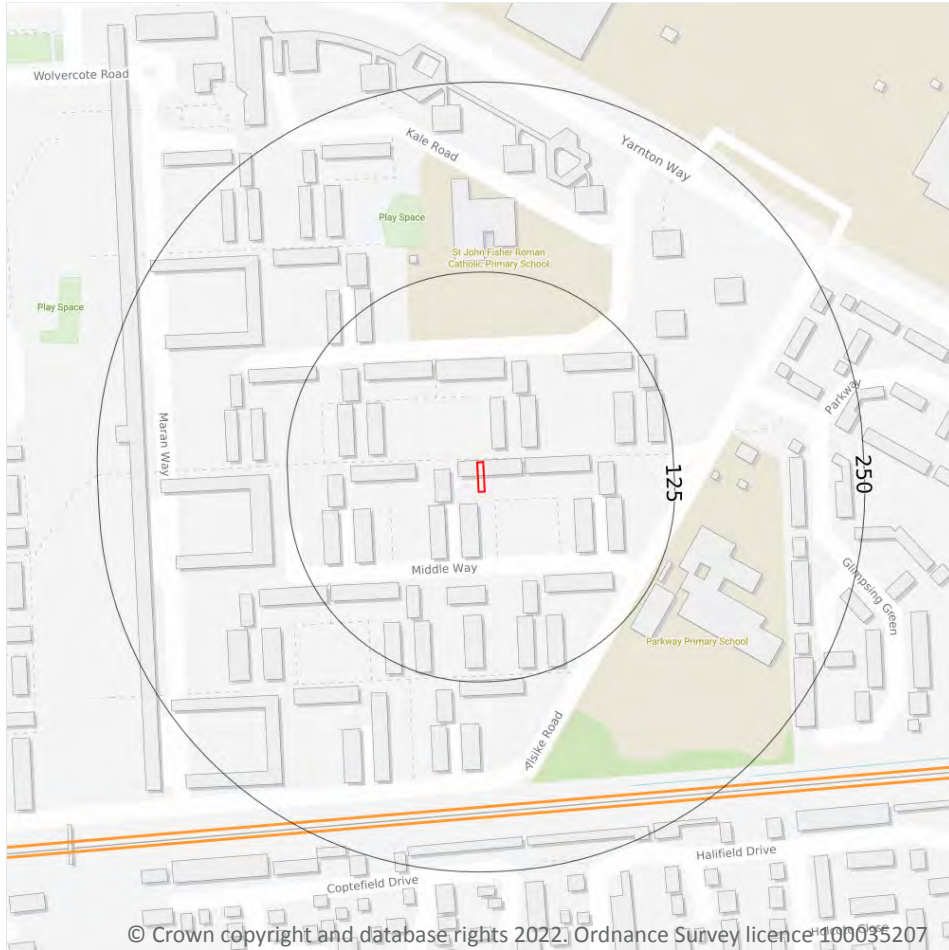
The Underground assessment includes London Underground, DLR, Tyne and Wear Metro, Merseyrail and Glasgow Subway.

Please see the Avista Action Alert on **page 3** for further advice. Additionally, see **page 16** for details of the identified issues.

Active Railways and Tunnels	Identified
Historical Railways and Tunnels	Identified
Railway and Tube Stations	Not identified
Underground	Not identified



## Transportation / Crossrail



**— Site Outline**

Search buffers in metres (m)

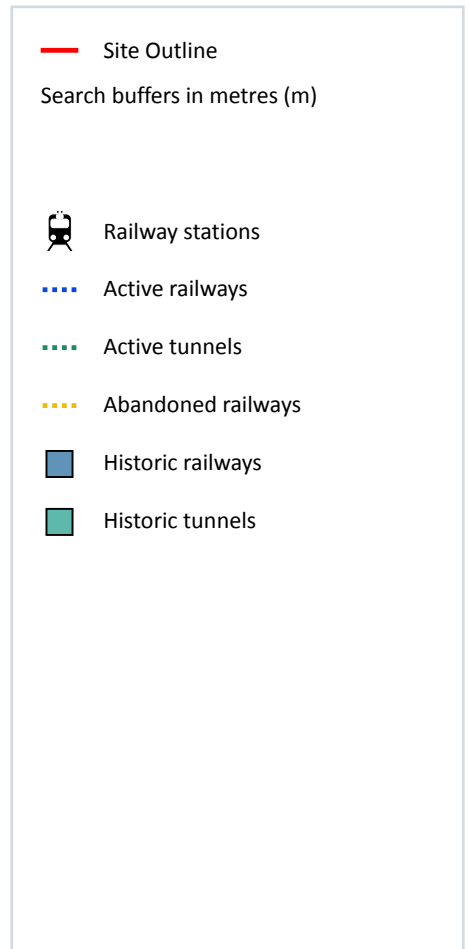
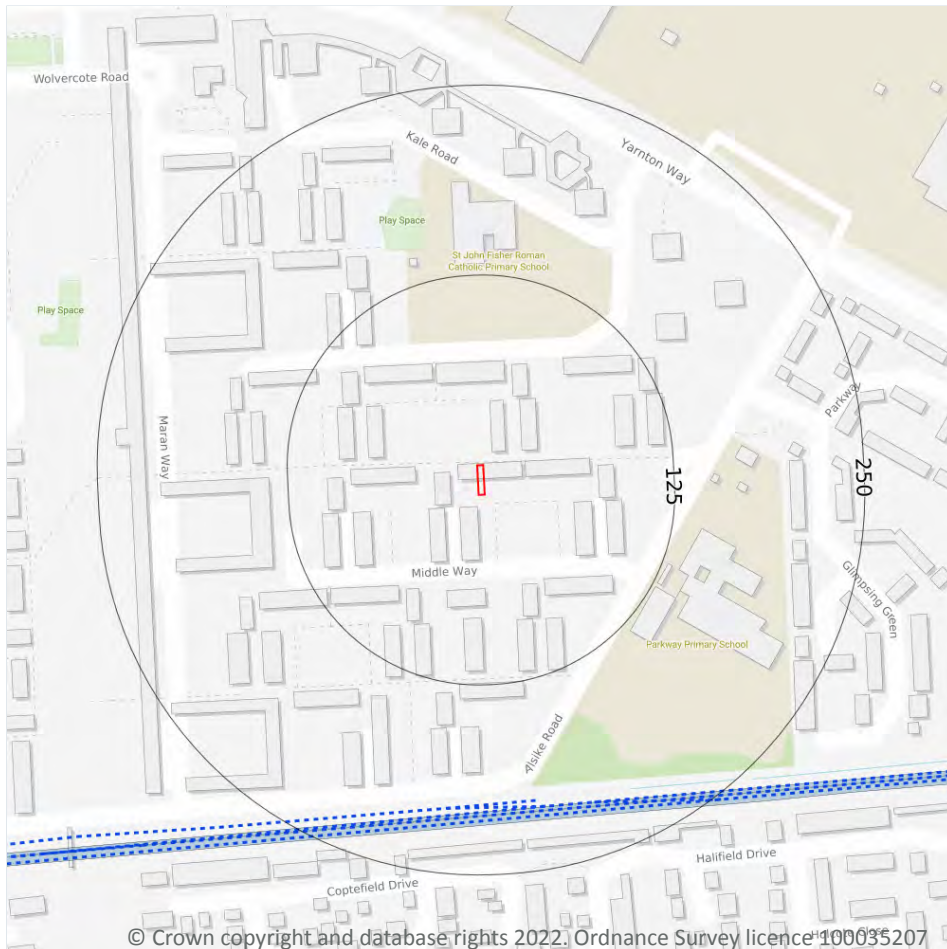
- C1** Crossrail 1 Stations
- Crossrail 1 Route
- C2** Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses

### Crossrail 1 route

The property is above or near to the Crossrail 1 Route. The operation of the Crossrail 1 project is designed to avoid significant disruption to properties above or in proximity. However, anyone considering purchasing the property should be aware of the potential for operational noise and vibration issues to arise.

Distance	Direction	Track Type at Nearest Point	Construction Status
207 m	S	Surface Alignment	Unknown
214 m	S	Surface Alignment	Unknown

## Transportation / Railways and Underground



### Active railways

The property is within 203 metres of an active railway line. Noise from railways varies significantly depending on the condition of the track, the conditions of the trains using the track and the speed of travel.

Groundsure suggests that you visit the property at different times of day in order to gauge the relative noise levels at and around the property. Defra noise maps may also offer an indication of general noise levels in the area, though cannot be used to assess the levels within an individual property. In the future, if you consider the property to be affected by railway noise from passenger trains, Network Rail may be able to assist in investigating this.

### Historical railway infrastructure

The property is situated within 250m of a railway or tunnel feature identified on historical mapping. Please note that many historical railways noted in this section will still be in use today.

Please note that for reasons of clarity only the closest record identified will be shown in the table below, though the full extent of records identified can be seen on the map.

Distance	Direction	Feature	Year
208 m	S	Railway Sidings	1909

## Energy summary



### Oil and gas

No historical, active or planned wells or extraction areas have been identified near the property.

**Oil and gas areas**  
**Oil and gas wells**

**Not identified**  
**Not identified**



### Wind and Solar

Our search of existing and planned renewable wind and solar infrastructure has identified results.

Please see the Avista Action Alert on **page 3** for further advice. Additionally, see **page 19** for details of the identified issues.

**Planned Multiple Wind Turbines**

**Identified**

**Planned Single Wind Turbines**

**Identified**

**Existing Wind Turbines**

**Identified**

**Proposed Solar Farms**

**Not identified**

**Existing Solar Farms**

**Identified**



### Energy

Our search of major energy transmission or generation infrastructure and nationally significant infrastructure projects has identified results.

Please see the Avista Action Alert on **page 3** for further advice. Additionally, see **page 25** for details of the identified issues.

**Power stations**

**Identified**

**Energy Infrastructure**

**Not identified**

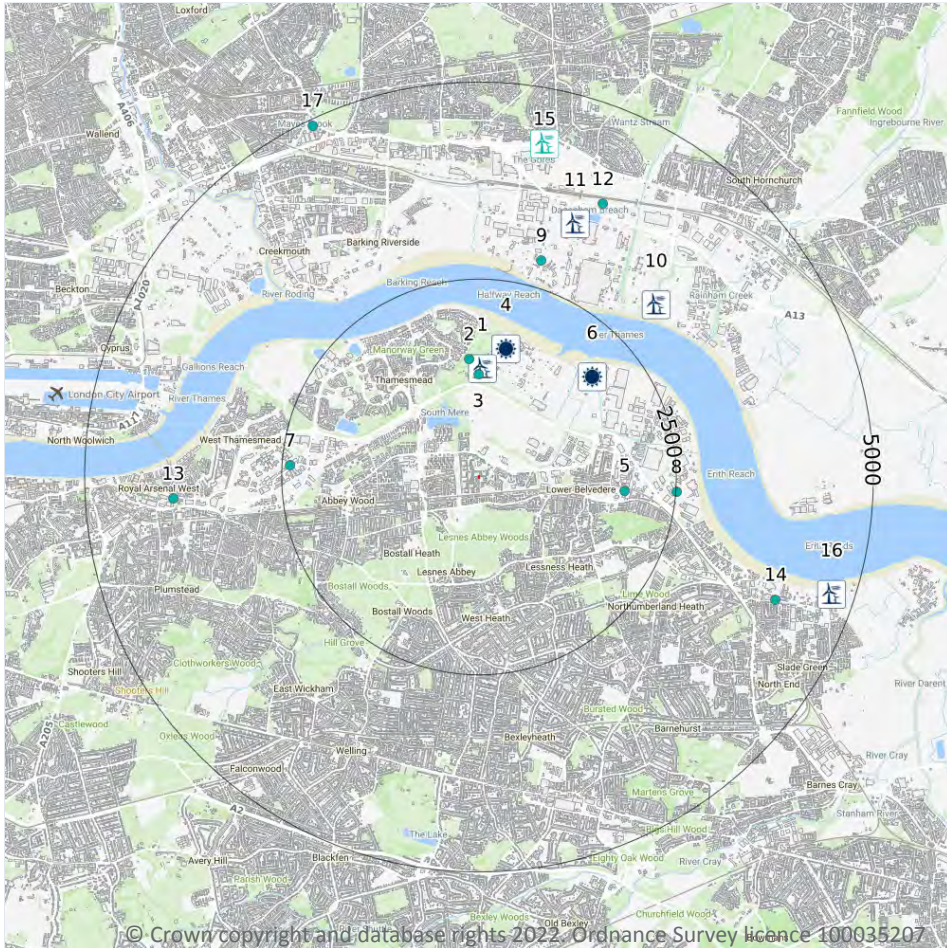
**Projects**

**Identified**





## Energy / Wind and solar



**Site Outline**

Search buffers in metres (m)

- Wind farms
- Proposed wind farms
- Proposed wind turbines
- Existing and agreed solar installations
- Proposed solar installations

### Wind farms

An active wind farm, group of turbines or individual wind turbine has been identified within 5,000m of the property. See below for details of the operating company, number of turbines, project and turbine capacity.

ID	Distance	Direction	Details	
1	1-2 km	N	Site Name: Crossness Sewage Treatment Works, Belvedere Road, London Operator Developer: Thames Water Utilities Ltd Status of Project: Operational	Type of project: Onshore Number of Turbines: 1 Turbine Capacity: 2.3MW Total project capacity: 2.3 Approximate Grid Reference: 548153, 180698

ID	Distance	Direction	Details	
10	3-4 km	NE	Site Name: Dagenham II, Ford Motors, Dagenham Estate, London Operator Developer: Ecotricity Group Ltd Status of Project: Operational	Type of project: Onshore Number of Turbines: 1 Turbine Capacity: 2.3MW Total project capacity: 2.3 Approximate Grid Reference: 550355, 181508
11	3-4 km	N	Site Name: Dagenham, Ford Motors, Dagenham Estate, London Operator Developer: Ecotricity Group Ltd Status of Project: Operational	Type of project: Onshore Number of Turbines: 2 Turbine Capacity: 1.8MW Total project capacity: 3.6 Approximate Grid Reference: 549329, 182535
16	4-5 km	E	Site Name: Erith - Aggregate Industries, Erith Works, Manor Road, Erith, South East Operator Developer: AGR Power Ltd Status of Project: Operational	Type of project: Onshore Number of Turbines: 1 Turbine Capacity: 0.5MW Total project capacity: 0.5 Approximate Grid Reference: 552580, 177835

This data is sourced from the UK Wind Energy Database supplied by Renewable UK. Groundsure recommends further independent research with Renewable UK of any sites of interest to determine exact locations and details of the projects.

## Proposed wind farms

A wind farm or group of turbines or individual wind turbine has been proposed within 5,000m of the property. See below for details of the operating company, number of turbines, project and turbine capacity.

Please note some planning applications identified as having been refused, may have subsequently been granted on appeal without appearing as such within this report. Additionally, please be aware that as the identified records are taken from a planning record archive, the proposals identified may have already been undertaken.

ID	Distance	Direction	Details	
15	4-5 km	N	Site Name: Barking & Dagenham, Dagenham, Essex, RM9 6S Planning Application Reference: 03/00201/FUL Type of Project: Wind Farm	Application Date: 2003-03-07 Planning Stage: Plans Approved Detail Plans Granted Project Details: The scheme is to comprise the provision of three 1.8MW wind turbines and all associated works. One of the turbines is to have a 65 m high viewing platform. The turbines have been designed by Sir Nor Approximate Grid Reference: 548940, 183548



This information is derived from planning data supplied by Glenigan, in some cases with further accuracy applied by Groundsure's experts. This search includes planning applications for wind farms with multiple turbines within 5,000m of the property. This data is updated on a quarterly basis.

If the existence of a planning application, passed or refused may have a material impact with regard to the decision to purchase the property, Groundsure recommends independent, thorough enquiries are made with the Local Authority. If any applications have been identified within this report, Groundsure have included the planning reference to enable further enquiries to be made.

## Proposed wind turbines

Planning applications for individual wind turbines have been proposed within 5,000m of the property. See below for details of the operating company, number of turbines, project and turbine capacity.

Please note some planning applications identified as having been refused may have subsequently been granted on appeal without appearing as such within this report. Additionally, please be aware that as the identified records are taken from a planning record archive, the proposals identified may have already been undertaken.

ID	Distance	Direction	Details	
3	1-2 km	N	Site Name: Belvedere Road, London, SE2 9AQ Planning Application Reference: 08/03936/FULEAMIN Type of Project: Sewage Treatment Works/Wind Turbine	Application Date: 2011-04-08 Planning Stage: - Project Details: Scheme comprises minor amendment to the extension to sewage treatment works including additional buildings, plant and tanks, the installation of a 2.5MW wind turbine 86 metre height to hub, 90 metre diameter blades and mitigation works including creation Approximate Grid Reference: 548165, 180730
2	1-2 km	N	Site Name: Belvedere Road, Bexley, London, Central London, SE2 9AQ Planning Application Reference: 08/03936/FULEAMIN02 Type of Project: Wind Turbine & Sewage Treatment Works (New/Extensi	Application Date: 2013-03-29 Planning Stage: Plans Approved Detail Plans Granted Project Details: Scheme comprises minor amendment for the extension to sewage treatment works including additional buildings, plant and tanks, the installation of a 2.5 megawatt wind turbine 86 metre height to hub, 90 Approximate Grid Reference: 548165, 180730
5	1-2 km	E	Site Name: Mitchell Close, Bexley, Belvedere, Kent, DA17 6AA Planning Application Reference: 08/01060/FUL Type of Project: Wind Turbine	Application Date: 2008-01-10 Planning Stage: Plans Approved Detail Plans Granted Project Details: Scheme comprises provision of a wind turbine to rear of building. Approximate Grid Reference: 549956, 179151

ID	Distance	Direction	Details	
7	2-3 km	W	<p>Site Name: 133 Nathan Way, West Thamesmead Buss Park, Tha, Greenwich, London, Central London, SE28 0AB</p> <p>Planning Application Reference: 05/0924/F</p> <p>Type of Project: Wind Turbine</p>	<p>Application Date: 2005-03-20</p> <p>Planning Stage: Plans Approved Detail Plans Granted</p> <p>Project Details: Scheme comprises construction of a 5.57 metre wind turbine blade mounted on a 9 metre tower and ancillary equipment.</p> <p>Approximate Grid Reference: 545714, 179468</p>
8	2-3 km	E	<p>Site Name: Church Manorway, Bexley, Erith, Kent, DA8 1HS</p> <p>Planning Application Reference: 07/17924/FUL</p> <p>Type of Project: Wind Turbine</p>	<p>Application Date: 2007-12-27</p> <p>Planning Stage: Plans Approved Detail Plans Granted</p> <p>Project Details: Scheme comprises construction of 45 metre tall wind turbine with associated works.</p> <p>Approximate Grid Reference: 550613, 179135</p>
9	2-3 km	N	<p>Site Name: 75 - 77 Chequers Lane, Barking &amp; Dagenham, Dagenham, Essex, RM9 6QJ</p> <p>Planning Application Reference: 07/00755/FUL</p> <p>Type of Project: Wind Turbine</p>	<p>Application Date: 2007-07-05</p> <p>Planning Stage: Early Planning Detailed Plans Submitted</p> <p>Project Details: Scheme comprises construction of an extension in connection with the part conversion of the premises into a biomass renewable energy turbine house.</p> <p>Approximate Grid Reference: 548902, 182072</p>
12	3-4 km	NE	<p>Site Name: Ford Motor Company Ltd Thames Avenue, (The River Thames At), Dagenham, RM9 6SA</p> <p>Planning Application Reference: U0009.09</p> <p>Type of Project: Wind Turbine</p>	<p>Application Date: 2009-04-02</p> <p>Planning Stage: Plans Approved Detail Plans Granted</p> <p>Project Details: Scheme comprises installation of 1 wind turbine with a maximum tip height of 120 metres, together with a short access track and temporary construction compound.</p> <p>Approximate Grid Reference: 549681, 182786</p>
13	3-4 km	W	<p>Site Name: Skeffington Street, Dawsetway Ltd, Greenwich, London, Central London, SE18 6SR</p> <p>Planning Application Reference: 06/2894/F</p> <p>Type of Project: Wind Turbine</p>	<p>Application Date: 2006-11-24</p> <p>Planning Stage: Plans Approved Detail Plans Granted</p> <p>Project Details: Scheme comprises construction of a wind turbine on roof of building.</p> <p>Approximate Grid Reference: 544230, 179048</p>

ID	Distance	Direction	Details	
14	4-5 km	E	Site Name: Aggregate Industries UK Ltd Manor Road, Erith Works, Erith, DA8 2AD Planning Application Reference: 12/00230/FUL Type of Project: Wind Turbine	Application Date: 2012-02-03 Planning Stage: Plans Approved Detail Plans Granted Project Details: Scheme comprises construction and operation of single powerwind 500 (500kw) wind turbine with associated transformer housing and cabling to sub-station, and temporary crane hard-standing/lay-down areas. Approximate Grid Reference: 551873, 177767
17	4-5 km	NW	Site Name: Dagenham Motors Ripple Road, Barking, IG11 9PG Planning Application Reference: 10/00991/FUL Type of Project: Wind Turbine	Application Date: 2011-03-01 Planning Stage: Plans Approved Detail Plans Granted Project Details: Scheme comprises replacement of 22.5 metre high 50kW wind turbine with 25 metre high (hub height) 50kW wind turbine (34.2 metre high to blade tip). Approximate Grid Reference: 545997, 183780

This information is derived from planning data supplied by Glenigan, in some cases with further accuracy applied by Groundsure's experts. This search includes planning applications for single wind turbines only, within 5,000m of the property. This data is updated on a quarterly basis.

If the existence of a planning application, passed or refused, may have a material impact with regard to the decision to purchase the property, Groundsure recommends independent, thorough enquiries are made with the Local Authority. If any applications have been identified within this report, Groundsure have included the planning reference to enable further enquiries to be made.

## Existing and agreed solar installations

There is an operational or planned solar photovoltaic farm or smaller installation located near the property.

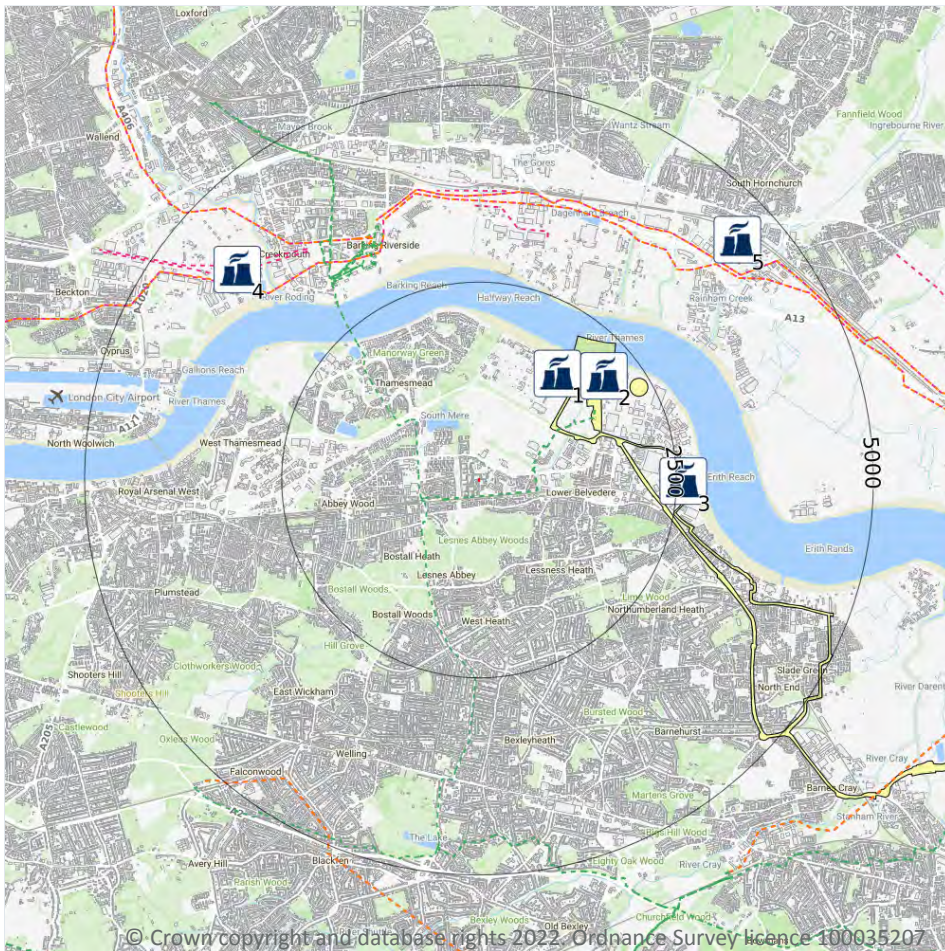
Please note this will not include small domestic solar installations. See below for details on installed capacity, operating company and the status of the project on a given date.

ID	Distance	Direction	Address	Details	
4	1-2 km	N	Crossness Sewage Works PV, Belvedere Road, London, SE2 9AR	Contractor: Thames Water Utilities LPA Name: Bexley London Borough Council Capacity (MW): 1.5	Application Date: - Pre Consent Status: Operational Post Consent Status: Operational Date Commenced: 27/07/2011

ID	Distance	Direction	Address	Details	
6	1-2 km	NE	Riverside Energy Park (REP), Norman Road, Bexley, DA17 6JY	Contractor: Cory Riverside Energy LPA Name: The Planning Inspectorate - National Infrastructure Capacity (MW): 1	Application Date: 16/11/2018 Pre Consent Status: Planning Permission Granted Post Consent Status: Awaiting Construction Date Commenced: -

The solar installation data is supplied by the Department for Business, Energy & Industrial Strategy and is updated on a monthly basis.

## Energy / Energy infrastructure



### Power stations

There is an active power station on or near to the property. Power stations can cause air pollution issues and may not be visually pleasing.

Power generation stations identified by these searches have a capacity of over 1 MW (Million Watt output) and will be one of the following types: Combined Cycle Gas Turbine (CCGT), Gas/Oil, Coal Gas, Diesel Gas, HP Oil, Poultry Litter, Coal/Oil, Coal/Gas, Meat and Bone, Pumped Storage Mine Gas, Rapeseed Oil, Straw/Gas Waste Combined Heat or Power Biomass.

Air pollution issues can be investigated further through the Air Quality team at the Local Authority. If the existence of any of a power generation station may have a material impact with regard to the decision to purchase the property, Groundsure recommends making independent enquiries with the operating company listed.



ID	Distance	Direction	Company name	Power station name	Type of power station	Total capacity (MW)	Operating since
1	1-2 km	NE	Thames Water Utilities Limited	Crossness Stw Biogas CHP	Combined Heat and Power	6	No Details
2	2-3 km	NE	Riverside Resource Recovery	Riverside	Conventional Steam	80	2011
3	2-3 km	E	ADM Erith LTD	Erith Oil Works	Combined Heat and Power	14	No Details
4	4-5 km	NW	Thames Water Utilities Limited	Beckton Stw Biogas CHP	Combined Heat and Power	6	No Details
5	4-5 km	NE	Thames Water Utilities Limited	Riverside STW	Combined Heat and Power	6	No Details

This data is sourced from the Digest of United Kingdom Energy Statistics (DUKES), a database from the Department for Business, Energy & Industrial Strategy.

## Large Energy Projects

Large scale energy generation or transmission infrastructure has been proposed on or near to the property. Plans have been submitted to the Planning Inspectorate (formerly known as the Infrastructure Planning Commission). See below for details of what is proposed.

Distance	Direction	Details	Summary
1-2 km	NE	Operator: Cory Riverside Energy Site Name: Riverside Energy Park Stage: Granted	An integrated energy park of up to 96 megawatts generating capacity (comprising waste energy recovery, waste anaerobic digestion, battery storage and solar generation) and associated electrical connection.
2-3 km	NE	Operator: Cory Environmental Holdings Limited (CEHL) Site Name: Cory Decarbonisation Project Stage: Pre application	Construction and operation of carbon capture plant, storage and marine export terminal

The information for this search is taken from a range of publicly available datasets. If the existence of a large scale infrastructure project may have a material impact with regard to the decision to purchase the property, Groundsure recommends making independent, thorough enquiries, starting with the National Infrastructure Planning website - <https://infrastructure.planninginspectorate.gov.uk/projects/>.



## Planning summary



### Planning Applications

Using Local Authority planning information supplied and processed by Glenigan dating back 10 years, this information is designed to help you understand possible changes to the area around the property. Please note that even successful applications may not have been constructed and new applications for a site can be made if a previous one has failed. We advise that you use this information in conjunction with a visit to the property and seek further expert advice if you are concerned or considering development yourself.

8

#### Large Developments

searched to 250m

Please see **page 28** for details of the proposed developments.

0

#### Small Developments

searched to 75m

0

#### House extensions or new builds

searched to 50m

Please note the links for planning records were extracted at the time the application was submitted therefore some links may no longer work. In these cases, the application details can be found by entering the application reference manually into the Authority's planning website.

In order to understand this planning data better together with its limitations you should read the full detailed limitations on **page 39**.



### Planning constraints

No protected areas have been identified within 50 metres of the property. Protected areas include nature reserves and other conservation areas.

**Environmental Protected Areas** Not identified  
**Visual and Cultural Protected Areas** Not identified



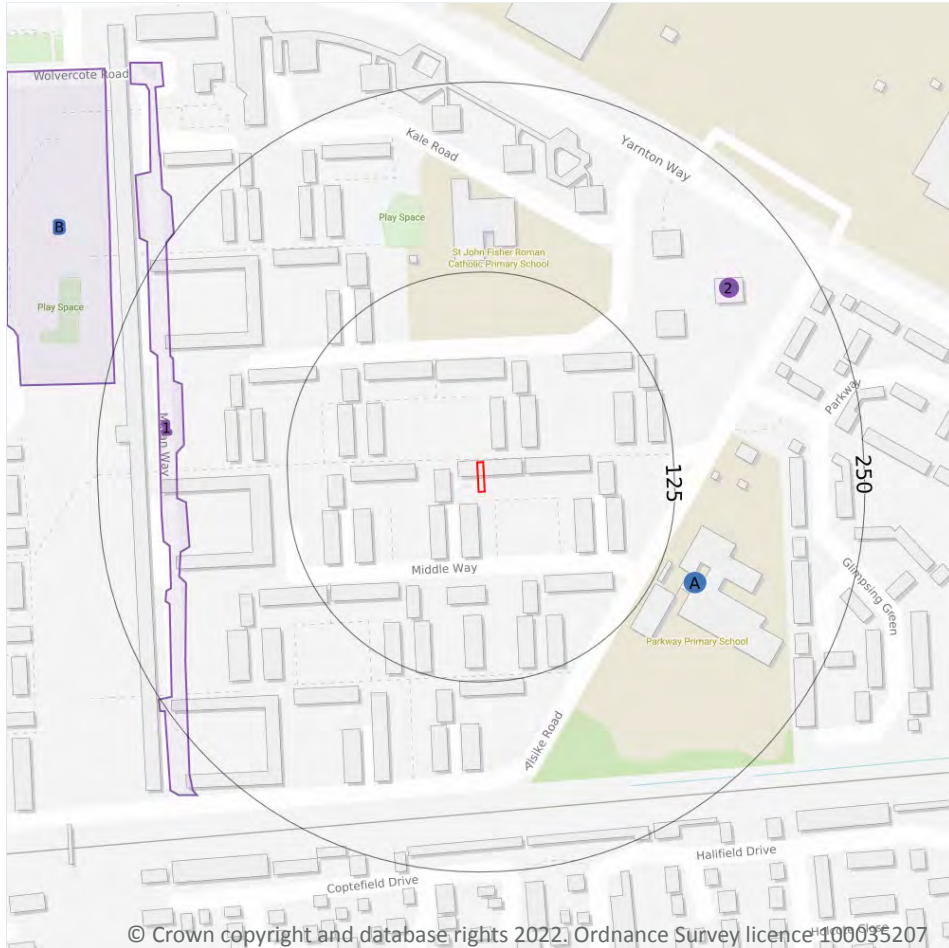
### Telecoms

There are no mobile masts, mobile phone base stations or planning applications for mobile masts identified within 250 metres of the property.

**Mobile phone masts**

Not identified

## Planning Applications



**Site Outline**

Search buffers in metres (m)

- Grouped applications and/or mobile mast records
- Mobile mast planning records
- OFCOM Sitefinder mobile masts
- Large Project planning application
- Large Project planning application (polygon)
- Small Project planning application
- Small Project planning application (polygon)
- House Extension planning application

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### Large projects searched to 250m

8 large developments within 250m from the property have been submitted for planning permission during the last ten years. Large developments are considered to be residential builds of 10 or more houses (or 1-9 units if value is greater than £1 million) and all other projects with a value of £250,000 or more. Please see below for details of the proposed developments.

ID	Details	Description	Online record
ID: A Distance: 151 m Direction: SE	Application reference: 15/02685/FULM Application date: 23/11/2015 Council: Bexley Accuracy: Proximity	Address: Alsike Road, Bexley, London, DA18 4DP Project: School (Extension/Alterations) Last known status: Detailed plans have been granted.	N/A

ID	Details	Description	Online record
ID: A Distance: 151 m Direction: SE	Application reference: N/A Application date: 01/12/2015 Council: Bexley Accuracy: Proximity	Address: Parkway School, Alsike Road, Bexley, London, DA18 4DP Project: School (Extension/Refurbishment) Last known status: Detailed plans have been granted.	N/A
ID: 1 Distance: 192 m Direction: W	Application reference: 22/01116/FUL Application date: 03/05/2022 Council: Bexley Accuracy: Exact	Address: Maran Way, Bexley, London, DA18 Project: Landscaping Works Last known status: An application has been submitted for detailed approval.	<a href="#">Link</a>
ID: 2 Distance: 198 m Direction: NE	Application reference: 13/01372/FUL Application date: 09/09/2013 Council: Bexley Accuracy: Proximity	Address: Dexter House, Kale Road, Harlequin House, Argali House, Bexley, London, DA18 4BD Project: Flats (Extension/Alterations) Last known status: Detailed plans have been granted.	<a href="#">Link</a>
ID: B Distance: 240 m Direction: W	Application reference: 21/2299/K Application date: 18/06/2021 Council: Greenwich Accuracy: Proximity	Address: Lesnes Estate Site, Bexley, London, SE2 Project: 1950 Residential Units & Commercial Units Last known status: An application has been submitted for outline approval.	<a href="#">Link</a>
ID: B Distance: 242 m Direction: W	Application reference: 21/00947/OBB Application date: 18/06/2021 Council: Dartford Accuracy: Exact	Address: Lesnes Estate Site, Bexley, London, SE2 Project: 1950 Residential Units & Commercial Units Last known status: An application has been submitted for outline approval.	<a href="#">Link</a>
ID: B Distance: 244 m Direction: W	Application reference: 21/01948/OUTEA Application date: 11/06/2021 Council: Bexley Accuracy: Exact	Address: Lesnes Estate Site, Bexley, London, SE2 Project: 1950 Residential Units & Commercial Units Last known status: An application has been submitted for outline approval.	<a href="#">Link</a>
ID: B Distance: 244 m Direction: W	Application reference: 20/01732/SCOPE Application date: 17/07/2020 Council: Bexley Accuracy: Exact	Address: Lesnes Estate Site, Bexley, London, SE2 Project: 1950 Residential Units & Commercial Units Last known status: An application has been submitted for outline approval.	<a href="#">Link</a>

## ClimateIndex™ physical and transition risks - Breakdown



Our ClimateIndex™ provides a climate score for your property, and projects changes in physical and transition risks from flooding, natural ground instability and coastal erosion. Climate change could have a significant medium to longer term impact on your property, which may be increasingly considered by your lender if you are arranging a mortgage. ClimateIndex™ provides ratings that indicate potential **physical risks** (loss and damage to property) and how these give rise to **transition risks** such as having a material impact on the ability to insure or mortgage the property in the medium to long term. In turn, this could affect the future resale value of the property.

You can see how these relate to the individual calculated risks in the breakdown below. The letter ratings should be used in conjunction with the change variance over the three time periods. Where an increase has been recorded we recommend following the additional advice below.

**Properties rated as A or B** - no further action required;

**Properties rated as C or D or a minor increase** - compared to today you should be aware there is an increase in risk due to climate change. We recommend taking this into account and discussing with your insurer if the property is likely to be insurable in the next 5 to 30 years. You may wish to raise this at the time of valuation;

**Properties rated as E or F or a major increase** - you should be aware there are physical risks affecting the property either now or in the future which could significantly impact upon the availability of insurance or a mortgage which in turn can impact upon the properties resale value;

**Properties with a significant increase** in their ClimateIndex rating over time may experience issues in obtaining insurance and mortgage lending on the property in the coming years. Projections may show that the property could also become uninhabitable in a worse case scenario.

Overall rating	1 year	5 years	30 years
Surface water flooding	No change	No change	No change
River flooding	No change	No change	Minor increase
Coastal flooding	No change	No change	No change
Ground instability	No change	Minor increase	Minor increase
Coastal erosion - defended	No change	No change	No change
Coastal erosion - undefended	No change	No change	No change
Coastal erosion - complex cliffs	No change	No change	No change

A No risk predicted  
 B Minor risk  
 C Minor to moderate risk

D Moderate risk  
 E Significant risk  
 F Severe or existential risk predicted

## Climate change / Flood risk (1, 5 and 30 Years)

Ambiental's FloodScore™ Climate data provides flood risk information from river, tidal and surface water flooding for a range of future time periods and emissions scenarios (Low emissions - RCP 2.6, medium and most likely emissions - RCP 4.5, and high emission - RCP 8.5). The temperature increases shown for each scenario are predicted increases by 2081-2100. The models are based on the UK Climate Projections 2018 (UKCP18). It is plausible that climate change will increase the severity and frequency of flood events in the future. FloodScore™ Climate has been designed to provide banks, building societies and insurers with future flood risk information for their long-term assets. The data within this report is based on the highest risk found within a buffer zone around the buildings. The 'Year' in the table represents the median of the date range used for each modelled timeframe.

Temp increase range	Year	Combined flood risk	River flooding	Coastal flooding	Surface water flooding
RCP 2.6 0.9-2.3°C	2023	No change	No change	No change	No change
RCP 2.6 0.9-2.3°C	2027	No change	No change	No change	No change
RCP 2.6 0.9-2.3°C	2055	No change	No change	No change	No change

Temp increase range	Year	Combined flood risk	River flooding	Coastal flooding	Surface water flooding
RCP 4.5 1.7-3.2°C	2023	No change	No change	No change	No change
RCP 4.5 1.7-3.2°C	2027	No change	No change	No change	No change
RCP 4.5 1.7-3.2°C	2055	No change	No change	No change	No change

Temp increase range	Year	Combined flood risk	River flooding	Coastal flooding	Surface water flooding
RCP 8.5 3.2-5.4°C	2023	No change	No change	No change	No change
RCP 8.5 3.2-5.4°C	2027	No change	No change	No change	No change
RCP 8.5 3.2-5.4°C	2055	Minor increase	Minor increase	No change	No change

This data is sourced from Ambiental Risk Analytics.

## Climate change / Natural ground instability (1, 5 and 30 Years)

This data shows the increase in shrink swell subsidence hazards as a result of climate change. When certain soils take in water they can swell, causing heave. Conversely, when these soils dry out they can shrink and cause subsidence. Climate change will result in higher temperature and therefore likely cause periods of drought and an increase in shrink swell subsidence. This data has been produced using the Met Office local projections to accurately model predicted rainfall, it is only available for RCP8.5 (the 'worst case' climate scenario).

Temp increase range	Year	Wet scenario	Average rainfall	Dry scenario
RCP 8.5 3.2-5.4°C	2023s	No change	No change	No change
RCP 8.5 3.2-5.4°C	2030s	Highly unlikely	Likely	Likely
RCP 8.5 3.2-5.4°C	2050s	Unlikely	Likely	Likely

This data is sourced from the British Geological Survey.



## Datasets searched

This is a full list of the data searched in this report. If we have found results of note we will state "Identified". If no results of note are found, we will state "Not identified". Our intelligent filtering will hide "Not identified" sections to speed up your workflow.

<b>Contaminated Land</b>		<b>Contaminated Land</b>	
Former industrial land use (1:10,560 and 1:10,000 scale)	Not identified	Dangerous industrial substances (D.S.I. List 2)	Not identified
Former tanks	Not identified	Pollution incidents	Not identified
Former energy features	Not identified	<b>Flooding</b>	
Former petrol stations	Not identified	Risk of flooding from rivers and the sea	Not identified
Former garages	Not identified	Flood storage areas: part of floodplain	Not identified
Former military land	Not identified	<b>Historical flood areas</b>	<b>Identified</b>
Former landfill (from Local Authority and historical mapping records)	Not identified	<b>Areas benefiting from flood defences</b>	<b>Identified</b>
Waste site no longer in use	Not identified	Flood defences	Not identified
Active or recent landfill	Not identified	Proposed flood defences	Not identified
Former landfill (from Environment Agency Records)	Not identified	Surface water flood risk	Not identified
Active or recent licensed waste sites	Not identified	<b>Groundwater flooding</b>	<b>Identified</b>
Recent industrial land uses	Not identified	<b>Radon</b>	
Current or recent petrol stations	Not identified	Radon	Not identified
Hazardous substance storage/usage	Not identified	<b>Mining features</b>	
Sites designated as Contaminated Land	Not identified	Mine entries	Not identified
Historical licensed industrial activities	Not identified	Mineralised veins	Not identified
Current or recent licensed industrial activities	Not identified	Surface workings	Not identified
Local Authority licensed pollutant release	Not identified	Surface features	Not identified
Pollutant release to surface waters	Not identified	Underground mine workings	Not identified
Pollutant release to public sewer	Not identified	Reported subsidence	Not identified
Dangerous industrial substances (D.S.I. List 1)	Not identified	Mine waste tips	Not identified
		Secured features	Not identified

## Mining features

Licence boundaries	Not identified
Researched mining	Not identified
Mining Record Office plans	Not identified
BGS mine plans	Not identified

## Mining records

BritPits	Not identified
Mineral Planning Areas	Not identified
Non-coal mining areas	Not identified
Mining cavities	Not identified
Coal mining areas	Not identified
Brine areas	Not identified
Gypsum areas	Not identified
Tin mining areas	Not identified

## Historical Features

<b>Non-coal mining</b>	<b>Identified</b>
Coal and associated mining	Not identified
Industry associated with mining	Not identified

## Geological features

Artificial and made ground (10k)	Not identified
Linear features - mineral veins (10k)	Not identified
Artificial and made ground (50k)	Not identified
Linear features - mineral veins (50k)	Not identified

## Satellite monitoring

Satellite monitoring	Not identified
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## Natural instability

Property shrink-swell assessment	Not identified
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## Natural instability

Shrink-swell clays	Not identified
Landslides	Not identified
National landslide database	Not identified
Running sands	Not identified

## Compressible deposits

**Identified**

Collapsible deposits	Not identified
Dissolution of soluble rocks	Not identified
Natural cavities	Not identified

## Coastal Erosion

Complex cliffs	Not identified
Projections with intervention measures in place	Not identified
Projections with no active intervention	Not identified
Complex cliffs	Not identified
Projections with intervention measures in place	Not identified
Projections with no active intervention	Not identified

## Infilled land

Infilling from historical mapping	Not identified
Active landfill sites	Not identified
Historical landfill (from Environment Agency records)	Not identified
Historical landfill (from Local Authority and historical mapping records)	Not identified

## Sinkholes

Reported recent incidents	Not identified
Recorded incidents (BGS)	Not identified
Recorded incidents (Stantec)	Not identified
Historical incidents	Not identified

Transportation	
HS2 route: nearest centre point of track	Not identified
HS2 route: nearest overground section	Not identified
HS2 surface safeguarding	Not identified
HS2 subsurface safeguarding	Not identified
HS2 Homeowner Payment Zone	Not identified
HS2 Extended Homeowner Protection Zone	Not identified
HS2 stations	Not identified
HS2 depots	Not identified
HS2 noise and visual assessment	Not identified
<b>Crossrail 1 route</b>	<b>Identified</b>
Crossrail 1 stations	Not identified
Crossrail 2 route	Not identified
Crossrail 2 stations	Not identified
Crossrail 2 worksites	Not identified
Crossrail 2 headhouses	Not identified
Crossrail 2 safeguarding area	Not identified
<b>Active railways</b>	<b>Identified</b>
Railway tunnels	Not identified
Active railway stations	Not identified
<b>Historical railway infrastructure</b>	<b>Identified</b>
Abandoned railways	Not identified
London Underground and DLR lines	Not identified
London Underground and DLR stations	Not identified
Underground	Not identified
Underground stations	Not identified
Oil and gas	
Oil or gas drilling well	Not identified

Oil and gas	
Proposed oil or gas drilling well	Not identified
Licensed blocks	Not identified
Potential future exploration areas	Not identified
Wind and solar	
<b>Wind farms</b>	<b>Identified</b>
<b>Proposed wind farms</b>	<b>Identified</b>
<b>Proposed wind turbines</b>	<b>Identified</b>
<b>Existing and agreed solar installations</b>	<b>Identified</b>
Proposed solar installations	Not identified
Energy	
Electricity transmission lines and pylons	Not identified
National Grid energy infrastructure	Not identified
<b>Power stations</b>	<b>Identified</b>
Nuclear installations	Not identified
<b>Large Energy Projects</b>	<b>Identified</b>
Planning	
<b>Large projects searched to 250m</b>	<b>Identified</b>
Small projects searched to 75m	Not identified
House extensions and small new builds searched to 50m	Not identified
Mobile phone masts	Not identified
Mobile phone masts planning records	Not identified
Planning constraints	
Sites of Special Scientific Interest	Not identified
Internationally important wetland sites (Ramsar Sites)	Not identified
Special Areas of Conservation	Not identified

## Planning constraints

Special Protection Areas (for birds)	Not identified
National Nature Reserves	Not identified
Local Nature Reserves	Not identified
Designated Ancient Woodland	Not identified
Green Belt	Not identified
World Heritage Sites	Not identified
Areas of Outstanding Natural Beauty	Not identified
National Parks	Not identified
Conservation Areas	Not identified
Listed Buildings	Not identified
Certificates of Immunity from Listing	Not identified
Scheduled Monuments	Not identified
Registered Parks and Gardens	Not identified

## Climate change

<b>Flood risk (1, 5 and 30 Years)</b>	<b>Identified</b>
<b>Natural ground instability (1, 5 and 30 Years)</b>	<b>Identified</b>

## Contaminated land liability assessment methodology

As part of this report Groundsure provide a professional assessment of the risks posed by key environmental information which could lead to the property being designated as 'Contaminated Land' as defined under Part 2A of the Environmental Protection Act 1990. This assessment is based on the following data:

- historical land use (compiled from 1:10,000 and 1:10,560 maps)
- petrol stations, garages, energy features and tanks (compiled from 1:1,250 and 1:2,500 maps) – for selected areas.
- historic military / ordnance sites
- landfill and waste transfer/treatment or disposal sites (including scrap yards)
- current and recent industrial uses (as defined by PointX data)
- Catalyst petrol station
- Part A(1), Part A(2) and Part B Authorisations
- sites determined as Contaminated Land under Part 2A EPA 1990
- Planning Hazardous Substance Consents
- Environment Agency Recorded Pollution Incidents
- Dangerous Substances Inventory Releases (DSI)
- Red List Discharge Consent

The level of risk associated with the property is either Passed or Action Required. If the report result is Action Required it does not necessarily mean that the site is unsuitable for purchase, but only that further assessment of the risk associated with the site is required.

### Method Statement

In assessing specific site risk, Groundsure follows principles used extensively throughout the environmental consultancy sector. Our system looks at the potential for specific industries to have generated residual contamination and for this contamination to remain at a site, or to have migrated to neighbouring sites. Sites are scored based on this system and if a site scores highly it indicates a high level of risk.

### Limitations of the Study

This report has been prepared with the assumption that the site is in residential use and that no significant (re)development is planned. The screening process reviews historical mapping and a range of current databases. The historical land use database reviewed for this study does NOT include 1:2,500 or 1:1,250 scale maps except for Groundsure's additional information database of selected features namely tanks, energy features, petrol filling stations and garages. This additional information database covers the majority of the UK, but not all. Where 1:2500 or 1:1250 scale maps are utilised all relevant and available map epochs to Groundsure are used. Additionally, this review does NOT include specific enquiries to the Local Authority who may hold additional information and it does NOT include a site visit/inspection. Your attention is drawn to the Terms and Conditions of Groundsure Limited under which this service is provided.

## Flood information

The Flood Risk Assessment section is based on datasets covering a variety of different flooding types. No inspection of the property or of the surrounding area has been undertaken by Groundsure or the data providers. The modelling of flood hazards is extremely complex and in creating a national dataset certain assumptions have been made and all such datasets will have limitations. These datasets should be used to give an indication of relative flood risk rather than a definitive answer. Local actions and minor variations, such as blocked drains or streams etc. can greatly alter the effect of flooding. A low or negligible modelled flood risk does not guarantee that flooding will not occur. Nor will a high risk mean that flooding definitely will occur. Groundsure's overall flood risk assessment takes account of the cumulative risk of river and coastal data, historic flood events and areas benefiting from flood defences provided by the Environment Agency/Natural Resources Wales (in England and Wales) and surface water (pluvial) and groundwater flooding provided by Ambiantal Risk Analytics. In Scotland the river and coastal flood models are also provided by Ambiantal Risk Analytics.



## Risk of flooding from rivers and the sea

This is an assessment of flood risk for England and Wales produced using local data and expertise, provided by the Environment Agency (RoFRaS model) and Natural Resources Wales (FRAW model). It shows the chance of flooding from rivers or the sea presented in categories taking account of flood defences and the condition those defences are in. The model uses local water level and flood defence data to model flood risk.

The categories associated with the Environment Agency and Natural Resources Wales models are as follows:

RoFRaS (rivers and sea) and FRAW (rivers):

**Very Low** - The chance of flooding from rivers or the sea is considered to be less than 1 in 1000 (0.1%) in any given year.

**Low** - The chance of flooding from rivers or the sea is considered to be less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) in any given year.

**Medium** - The chance of flooding from rivers or the sea is considered to be less than 1 in 30 (3.3%) but greater than 1 in 100 (1%) in any given year.

**High** - The chance of flooding from rivers or the sea is considered to be greater than or equal to 1 in 30 (3.3%) in any given year.

FRAW (sea):

**Very Low** - The chance of flooding from the sea is considered to be less than 1 in 1000 (0.1%) in any given year.

**Low** - The chance of flooding from the sea is considered to be less than 1 in 200 (0.5%) but greater than or equal to 1 in 1000 (0.1%) in any given year.

**Medium** - The chance of flooding from the sea is considered to be less than 1 in 30 (3.3%) but greater than 1 in 200 (0.5%) in any given year.

**High** - The chance of flooding from the sea is considered to be greater than or equal to 1 in 30 (3.3%) in any given year.

## Historic flood events

Over 86,000 events are recorded within this database. This data is used to understand where flooding has occurred in the past and provides details as available. Absence of a historic flood event for an area does not mean that the area has never flooded, but only that Environment Agency/Natural Resources Wales do not currently have records of flooding within the area. Equally, a record of a flood footprint in previous years does not mean that an area will flood again, and this information does not take account of flood management schemes and improved flood defences.

## Surface water flooding

Ambiental Risk Analytics surface water flood map identifies areas likely to flood following extreme rainfall events, i.e. land naturally vulnerable to surface water or "pluvial" flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1000 year rainfall events. The flood risks for these rainfall events are reported where the depth would be greater than the threshold for a standard property to modern building standards. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though older ones may even flood in a 1 in 5 year rainstorm event.

## Proposed flood defences

The data includes all Environment Agency/Natural Resources Wales's projects over £100K that will change or sustain the standards of flood defence in England and Wales over the next 5 years. It also includes the equivalent schemes for all Local Authority and Internal Drainage Boards.

## Flood storage areas

Flood Storage Areas may also act as flood defences. A flood storage area may also be referred to as a balancing reservoir, storage basin or balancing pond. Its purpose is to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel. It may also delay the timing of a flood peak so that its volume is discharged over a longer time interval. These areas are also referred to as Zone 3b or 'the functional floodplain' and has a 5% or greater chance of flooding in any given year, or is designed to flood in the event of an extreme (0.1%) flood or another probability which may be agreed between the Local Planning Authority and Environment Agency/Natural Resources Wales, including water conveyance routes. Development within Flood Storage Areas is severely restricted.

## Groundwater flooding

Groundwater flooding is flooding caused by unusually high groundwater levels. It occurs as excess water emerging at the ground surface or within underground structures such as basements. Groundwater flooding tends to be more persistent than surface water flooding, in some cases lasting for weeks or months, and it can result in significant damage to property. This risk assessment is based on a 5m Digital Terrain Model (DTM) and 1 in 100 year and 1 in 250 year return periods.

## Ambiental FloodScore™ insurance rating

The property has been rated as **Very Low** risk.

Ambiental's FloodScore™ risk rating gives an indicative assessment of the potential insurance risk classification from flooding, which can provide an indication of how likely it is that a property's policy will be ceded to Flood Re. The assessment is based on Ambiental's river, tidal and surface water flood data and other factors which some insurers may use in their assessment are not included.

Flood Re is a re-insurance scheme that makes flood cover more widely available and affordable as part of your residential property home insurance. Properties at higher risk of flooding may have the flood part of their policy ceded to Flood Re by their insurer. It is important to understand that Flood Re does not apply to all situations. Exclusions from Flood Re includes properties constructed after 1 January 2009; properties not within domestic Council Tax bands A to H (or equivalent); commercial properties, certain buy to let scenarios and buildings comprising four or more residential units. A full list of the exemptions can be found on the Flood Re website (<https://www.floodre.co.uk/can-flood-re-help-me/eligibility-criteria/>).

The Ambiental FloodScore™ insurance rating is classified into six different bandings:

**Very High** indicates a level of risk that may make it more likely that standard insurance premiums will be higher, or additional terms may apply to the provision of flood cover. There is a very high possibility that the cover for flooding at the property will be ceded into the Flood Re scheme, particularly if the property has flooded in the past.

**High** indicates a level of risk that may make it more likely that standard insurance premiums will be higher, or additional terms may apply to the provision of flood cover. There is a high possibility that the cover for flooding at the property will be ceded into the Flood Re scheme, particularly if the property has flooded in the past.

**Moderate-High** indicates a level of risk that may make it more likely that standard insurance premiums will be higher, or additional terms may apply to the provision of flood cover. There is a moderate possibility that the cover for flooding at the property will be ceded into the Flood Re scheme, particularly if the property has flooded in the past.

**Moderate** indicates a level of risk that may make it more likely that standard insurance premiums will be higher, or additional terms may apply to the provision of flood cover. There is a low possibility that the cover for flooding at the property will be ceded into the Flood Re scheme, unless the property has flooded in the past.

**Low** indicates a level of risk that is likely to mean standard cover and premiums are available for flood cover. There is a low possibility the cover for flooding at the property will be ceded into the Flood Re scheme, unless the property has flooded in the past.

**Very Low** indicates a level of flood risk that should not have any impact on the provision of flood cover for the property.

## Planning data limitations

The planning applications section of this report contains data provided under licence from Glenigan, who are widely recognised in the industry as the market leaders in the collection and distribution of planning information in the UK. Glenigan collects on average 4,000 planning applications per day. As such, neither Groundsure or Glenigan are able to check the accuracy of the information that has been submitted by the applicant. All application information is based on the information submitted at the time of application and due to the volumes and the automated processes involved it is not possible to undertake additional checks to confirm its accuracy. As with any dataset of this size and complexity there are limitations, which are highlighted below.

The planning section in our report is fully automated and Groundsure does not undertake visits to the Local Authority or manually search for planning records against other sources as this would be cost-prohibitive to most clients. With each report, Glenigan provides Groundsure with the location detail for each planning application, which is then published within our report. The method for deriving the location detail depends on the type of planning application.

The location of applications are represented in this report as single points for house extensions and small new builds, small developments and points or polygons for large developments. If an application associated with a small development is shown on the map as a polygon it is because it was once classified as a large development and has since been downgraded. The location of

applications is derived from either the grid references provided by the applicant on the planning application form or by address finding software using the site address. If the application is represented by a point, it may not represent the nearest border of the development and may fall outside of the development boundary. If the application is represented by a polygon, we only map the outer extents of proposed developments. Some developments are comprised of multiple areas and in these cases we will show all polygons on the map but only label the one closest to the property. The information contained within this report should be used in conjunction with a visit to the relevant local authority's website to determine the exact location of the development, determine any possible distinctions within the development area, and how this may impact the subject property.

Groundsure has incorporated a dynamic search radius to ensure the most relevant data is presented. This variable search distance is based on House of Commons Library data which categorises areas according to the size of the settlement. Groundsure has distilled these into three core categories. These categories are mega urban, urban and rural and the following search distances apply:

- Mega urban: 250m for large developments, 75m for small developments and 50m for house extensions and small new builds
- Urban: 500m for large developments, 125m for small developments and 50m for house extensions and small new builds
- Rural: 750m for large development, 500m for small development and 250m for house extensions and small new builds

Please note, the search radius assigned to this property is detailed within the planning section of the report.

Due to differing methodologies adopted by Local Authorities, some planning applications identified as having been refused may have subsequently been granted on appeal without appearing as such within this report. As such, if any refused applications are identified within this report, or should the existence or absence of a planning application, consent or similar have a material impact with regard to the decision to purchase a property, the client or beneficiary should make independent thorough enquiries of the Local Authority. Groundsure has excluded certain records of the publicly available data from this report which may have created duplications of reference to the same application. This includes, but is not limited to, data relating to applications such as amendments or variations of planning applications, discharge of conditions, or other associated applications. The report does not contain information on Lawful Development Certificates, Permitted Developments, Prior Approvals, Tree Preservation Orders, and other applications that are considered minor in terms of the level of construction. Additionally, an area of land may be identified for development within the local authority development plan, but for which no formal planning application exists. As such these are not included within the search.

Groundsure provides a web link to individual planning records in this report, but over time Local Authorities may have altered their website structure or record storage and so not all links may still be active. In the case of broken links, customers can use the planning application reference to search the Local Authority planning website manually. Due to data collection methods and processing time, there may be a period of up to 10 days between the application being published on the local authority website and appearing within the Groundsure report.

It is important to note the terms and conditions under which the report was sold, and in particular, whilst Groundsure makes every effort to ensure that data is sourced from reliable providers, it is unable to guarantee that the information is accurate, complete or up to date. Groundsure shall not be liable for any losses or damages incurred by the client or beneficiary, including but not limited to any losses or damages that arise as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such part is based on any Third Party Content or any reasonable interpretation of Third Party Content. We recommend checking the contents of the TA6 Property Information Form completed by the seller to determine if any planning applications were revealed. If they were not and you believe this should have been included we recommend discussing this with your conveyancer.

## Conservation Area data limitations

Please note the Conservation Area data is provided by Historic England and individual Local Authorities. Due to different methodologies used by different Local Authorities the data may be incomplete. We recommend reviewing your local search for confirmation.

## Underground data limitations

This database was created by Groundsure using publicly available open data and data from OpenStreetMap. The data is not provided by or endorsed by Transport for London (TfL) and minor differences between TfL's official data and Groundsure's data may occur in relation to the London Underground. Please note that the London Underground, Merseyrail, and Tyne and Wear Metro operate both underground and above ground.

## Subsidence data limitations

The natural ground subsidence assessment is based on the British Geological Survey's GeoSure data. GeoSure is a natural ground stability hazard susceptibility dataset, based on the characteristics of the underlying geology, rather than an assessment of risk. A hazard is defined as a potentially damaging event or phenomenon, whereas a risk is defined as the likelihood of the hazard impacting people, property or capital. The GeoSure dataset consists of six data layers for each type of natural ground subsidence hazard. These are shrink-swell clay, landslide, compressible ground, collapsible ground, dissolution of soluble rock and running sand. Each hazard is then provided with a rating on its potential to cause natural ground subsidence. This rating goes from A-E, with A being the lowest hazard, E being the highest. Groundsure represent full GeoSure data as either Negligible (ratings of A), Very Low (ratings of B), Low (C), Moderate (D) or High (E). Where GeoSure Basic is instead used, ratings are displayed as Negligible-Very Low (A or B ratings), Low (C) or Moderate-High (D or E). The GeoSure data only takes into account the geological characteristics at a site. It does not take into account any additional factors such as the characteristics of buildings, local vegetation including trees or seasonal changes in the soil moisture content which can be related to local factors such as rainfall and local drainage. These factors should be considered as part of a structural survey of the property carried out by a competent structural surveyor. For more information on the "typical safe distance" trees should be from a property please see this guide:

<https://www.abi.org.uk/globalassets/sitecore/files/documents/publications/public/migrated/home/protecting-your-home-from-subsidence-damage.pdf>

## ClimateIndex™ data and limitations

Groundsure's ClimateIndex™ is an assessment of the physical risk to the property from hazards which may be exacerbated by climate change. It considers the following hazards only:

- River flooding
- Flooding from the sea and tidal waters
- Surface water flooding
- Shrink swell subsidence
- Coastal erosion

These hazards are assessed using a weighted sum model, which allows for the consistent comparison of hazards between different time periods, emissions scenarios and the relative severity of predicted impacts. All flood and subsidence impacts have been produced using the latest UKCP18 climate prediction models. Assessments are provided for the near -present day (c.1 year), short term (c.5 years) and medium term (c.30 years) only. A range of [Representative Concentration Pathways \(RCPs\)](#) have been used depending on the source dataset and its derivation. For example, flood data has been provided for RCP2.6, 4.5 and 8.5, whereas subsidence data has been derived using local projections only available for RCP8.5. Each RCP variance has been assigned an appropriate weighting in the calculator to reflect the relative likelihood of that scenario and where a full range of RCP scenarios is not available Groundsure have extrapolated to give equivalent values.

The banding applied to a property reflects its current and future risk from the hazards identified above. If a property's banding does not change from the present day to the medium term, the property's risk profile is not considered likely to be affected by climate change, though risks may still be present. Any increase in the banding of a property indicates that the property has the potential to be affected by climate change.

Band	Description	1 year	Short term (c.5 year)	Medium term (c.30 year)
A	No or very minor risk e.g. minor increase in subsidence potential	86.52%	75.80%	75.01%
B	Minor risks e.g. low level surface water flooding	6.44%	14.83%	15.15%
C	Moderate risks e.g. river flood event above property threshold	4.59%	4.16%	4.03%
D	Moderate-high risks e.g. above threshold flood events and significant increase in subsidence potential	0.78%	2.29%	2.65%
E	High risks e.g. multiple flood risks above property threshold	0.90%	1.50%	1.61%
F	Significant or existential risks to property e.g. coastal erosion risk	0.77%	1.42%	1.56%

Percentage of properties falling into each band

## Mining information

### Non-coal mining assessment

This mining search has been compiled from the archive information held by Groundsure. As with all historic mining records, there is no guarantee or assurance of reliability or accuracy of these records. Not all mining activities were recorded or are publically available. Groundsure can't be held responsible for any omissions or errors in the information upon which our interpretation has been based.

Historical mining records vary in document age, reliability, reproduction, quality of the original record, the reason to produce the original document, the skill of the original surveyor and the accuracy of the available surveying equipment at the time of production. It must be accepted that the information is subject to interpretation. Alternative interpretations may be possible.

In any area, sporadic, un-surveyed and ancient mine workings can exist, and unrecorded mine workings or mineralised veins can never be ruled out. Groundsure cannot be held responsible for any settlement or subsidence associated with unrecorded mining features, or from mining plans that are not publically available.

If the property or site is subject to future development we recommend that the ownership of the minerals below the site's surface is established. This detail may be sought from a legal adviser or via the Land Registry. You can then assess whether there is a possibility of any proposed development disturbing or trespassing upon any minerals in third party ownership at the site.

In addition, a mining site investigation may be required to satisfy planning or building regulation conditions. Contact Groundsure for further advice.

### Coal Authority data

This report contains Data provided by the Coal Authority. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure Limited and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure Limited prior to any re-use.

### Satellite monitoring

SatSense produces countrywide ground movement products based on satellite radar data. For property movement products in the UK we use data from the ESA Sentinel-1 satellite constellation, which has a resolution of 4 by 14 metres. This means that the smallest objects we can detect are the size of a large shed, and we often get multiple measurement points over individual houses. We receive a new radar image every six days, and data collection started in 2015 (although initially, acquisition frequency was lower). This means



we have 250+ measurements in time everywhere in the UK. By analysing this long time history using a technique known as InSAR, we can detect long-term movements as low as 1 mm/yr, which is far below movement levels expected to cause property damage.

What is InSAR?

Interferometric Synthetic Aperture Radar (InSAR) is a processing technique that uses the difference between radar images to detect ground movements with high precision. Two (or more) radar images are overlaid such that they match exactly, and the radar measurements for every matching pixel in the images are differenced. The phase information from this difference is then used to extract ground movement for every pixel. SatSense processes all available data over the United Kingdom.

Why can't we measure everywhere?

A limitation of InSAR is that it relies on consistent radar returns from the reflecting surface (buildings, fields, woodland). While some types of surfaces, like buildings, bridges and bare ground are naturally very consistent, ground cover like dense vegetation and fast-growing crops inherently can vary rapidly over time and therefore interfere with the radar measurement. During our processing, we detect which points provide usable measurements, and which points have had too much interference. This means coverage is variable; dense in urban areas, but much more sparse in rural areas.

Why do we need risk indices?

The SatSense ground movement product measures a wide range of ground movements, from long-term, large regional signals to event level movement of individual points. Not all movements have the same damage potential for buildings. Compare an entire town that is subsiding due to groundwater variations to a single building subsiding due to local instability. Buildings in the subsiding town are all moving at very similar rates, meaning there is little to no relative movement between them. This makes the potential for damage much lower than the individual building moving with respect to its neighbours.

To differentiate between different types of movements, we've developed a way to extract different types of movements that are potentially damaging to property. This information is captured by the SatSense risk indices. These risk indices are described below:

- Property - This shows any long-term differential movement of the property with respect to its immediate surroundings, in other words, very localised movements. Examples of processes that could flag up this risk index would be trees affecting the nearby water table, local ground instability and small scale nearby building work.
- Surrounds – Focuses on slightly larger scale movements, how is the street or estate moving with respect to the wider area. Examples of processes that could flag up this risk index are tunnelling, large scale nearby building work and groundwater extraction.
- Local Area - Our widest scale index, showing how a town/neighbourhood as a whole is moving. This index is normally flagged up due to the presence of large scale historic mining or large scale groundwater extraction. Due to the wide area and the limited potential for damage likely to be associated with this type of movement, this index will only indicate amber or green, never red.
- Gradient – Looks for bending over medium spatial scales. This index will flag up properties that might not be moving much themselves but are being affected by movements in the vicinity.
- Acceleration - Looks at the recent changes in movements, flagging up properties that might not have historically been moving, but have recently seen an increase. It also provides information on whether properties that have moved historically continue to move, or whether the movement is decreasing.
- Range – Looks at the amplitude of movement over time. This will highlight periodic (seasonal) movements, and event style movements like sinkholes.

## National Coastal Erosion Risk Mapping (NCERM)

The National Coastal Erosion Risk Mapping (2018-2021) shows the coastal baseline. This baseline is split to 'frontages'. These are defined as lengths of the coast with consistent characteristics based on the cliff behaviour characteristics and the defence characteristics. It is intended as an up-to-date and reliable benchmark dataset showing erosion extents and rates for three periods:

- Short Term (0 – 20yr);
- Medium Term (20 – 50yr); and
- Long Term (50 – 100yr).

For the 5th, 50th and 95th percentile confidence levels (degrees of certainty, where 95th percentile equates to 95% certainty) for:

- No Active Intervention Policy Scenario; and
- With the implementation of Shoreline Management Plan (SMP) 2 Policies.

Defence type and SMP policies for each of the three periods described above are included.

The data and associated information is intended for guidance - it cannot provide details for individual properties. The NCERM information considers the predominant risk at the coast, although flooding and erosion processes are often linked, and data on the erosion of foreshore features are, in general, not included.

The data describes the upper and lower estimates of erosion risk at a particular location, within which the actual location of the coastline is expected to lie. The data does not estimate the absolute location of the future coastline. Details of geologically complex areas, known as "complex cliffs" are, in general, not included within the estimates of erosion risk due to the inherent uncertainties associated with predicting the timing and extent of erosion at these locations.

This dataset succeeds National Coastal Erosion Risk Mapping (NCERM) - National (2012 - 2017) Attribution statement: © Environment Agency copyright and/or database right

## BGS Property Shrink Swell Assessment

This dataset uses OS Open Maps building polygons to derive its assessment. These are often representative of more than one building and so the score assigned is representative of the highest risk found within the connected building units e.g. a pair of semi-detached properties or a terraced row. The baseline mapping used to derive the assessment will be updated at least annually.

The assessment does not cover any man-made hazards and is based on, and limited to the input datasets including OS Open Buildings, Office for National Statistics data, Bluesky Tree Map and BGS GeoSure shrink-swell. An indication of natural ground instability related to shrink-swell does not necessarily mean that a location will definitely be affected by ground movement or subsidence. Such an assessment can only be made by inspection of the area by a qualified professional.

## Conveyancing Information Executive and our terms & conditions

### IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Groundsure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: [info@groundsure.com](mailto:info@groundsure.com). Groundsure adheres to the Conveyancing Information Executive Standards.

### The Standards

- Conveyancing Information Executive Members shall act in a professional and honest manner at all times in line with the Conveyancing Information Executive Standards and carry out the delivery of the Search with integrity and due care and skill.
- Compliance with the Conveyancing Information Executive Standards will be a condition within the Conveyancing Information Executive Member's Terms and Conditions.
- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.

### Complaints Advice

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs.

### COMPLAINTS PROCEDURE: If you want to make a complaint, we will:

- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Operations Director, Groundsure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: [info@groundsure.com](mailto:info@groundsure.com) If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: [admin@tpos.co.uk](mailto:admin@tpos.co.uk) We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

Groundsure's Terms and Conditions can be viewed online at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>

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