Overall Opinion

This report reveals significant flood risk issues which should be addressed. Further assessment is recommended in order to clarify the risk of flooding at the site and to determine appropriate flood protection measures. Please see the Recommendations section.

Flood Risks

- **Undefended Flood Risk**
  - What is the overall risk of flooding, assuming defences fail or are absent or over-topped? **High**

- **Flood Defences**
  - Are there existing flood defences that might benefit the site? **Yes**

- **Effect**
  - What is the risk of flooding when these defences are operational? **High**

- **Development Risk**
  - If development is proposed would a detailed Flood Risk Assessment be required? **Yes (Full)**

Flood Risk Gauges

- **River**
- **Coastal**
- **Groundwater**
- **Surface Water**
- **Other**

Insurance

Based on the level of flood risk indicated, obtaining insurance terms may not easily be available without a high premium or excess.

CONTACT DETAILS

If you require assistance please contact our customer services team on:

0844 844 9966

or by email at: helpdesk@landmark.co.uk
Understanding this report

This is a flood risk screening report. It is designed to help property professionals assess the risk of flooding at commercial sites. It examines three areas: How flood risk affects the availability of insurance for a site; how flood risk affects the potential to redevelop a site; and the overall risk of flooding at a site.

A summary of flood risks is provided on the front page. It is split into:

**Overall Opinion**

The overall flood risk rating is an assessment of all the data within this report. This opinion is followed by a number of flood risk considerations.

**Undeveloped Flood Risk and Flood Defences**

The first answer is a worst-case scenario and assumes that no defences are present or that they have failed or been over-topped.

The next question informs if there are any flood defences present that could protect the site (data provided by The Environment Agency to a distance of 500m). If defences are present a third question indicates what the flood risk is when they work.

A residual risk of flooding may be present if such defences failed. Flood defences do not generally protect the site against groundwater and surface water flooding.

**Insurance**

Landmark provides an indication of whether the level of flood risk at the site is likely to affect your ability to obtain insurance or if premiums could be high. Details of how we make this assessment can be found in the Methodology section at the back of the report.

Since April 2016 insurers of commercial property are all free to decide whether to offer insurance against flooding, at what price, and on what terms. They will have different attitudes to risk. This means there is no set of universal guidelines on whether insurance will be available against flood risk or not. This is why we may have recommended you consult your proposed insurer prior to exchange of contracts, to establish the terms on which flood insurance would be offered.

For some sites, it is possible to reduce the risk of flooding by installing flood protection measures (either flood resistance or flood resilience measures). If these measures are appropriate to the site, and have been installed properly, then an insurer may offer better terms (lower premium, lower excess or fewer conditions to cover).

**Development Risk**

The report comments on whether a detailed Flood Risk Assessment (FRA) would be required if redevelopment was proposed in accordance with National Planning Policy Framework (NPPF). The answer to this question is indicative only and is based on the size of the site and the flood data in this report.

A Drainage Impact Assessment may be required to demonstrate that development of the site will not adversely affect flood risk elsewhere.

**Flood Risk Gauges**

The flood risk gauges provide a more detailed analysis of the risk from each of the four main types of flooding – river, coastal, groundwater, and surface water. A fifth gauge provides an analysis of other factors (i.e. historical flood events, geological deposits, proximity to surface water features and elevation above sea level).

For surface water flooding, only the risk rating generated from the 1:200 year rainfall event data is included in the overall risk assessment. The data on 1:75 year and 1:1000 year rainfall events is provided for information only.

The gauges take into account any existing flood defences and assumes they work as designed. The analysis also takes into account the other information contained in those data sections of the report which are relevant to that particular type of flooding. The assessment of the risk as shown in the flood gauge should therefore take priority over the information in the individual data sections of the report.
Aerial Photograph
This photograph enables you to check the location used for this report

Perseverance Mills Brook Court, Padiham, BURNLEY, Lancashire, BB12 7DY
Overall Opinion

Recommendations
We recommend these next steps

1. We recommend carrying out a more detailed assessment (a FLOODSOLUTIONS Consult Report). Using the highest detail topographical data available and Environment Agency flood levels, the report will specify the expected flood depths at the property. This can be used to increase your understanding of the risk and the potential significance of a flood event, and to inform a flood survey. The survey will provide a cost appraisal for installing suitable protection measures. This Report is available from £550 plus VAT (including all disbursements) dependent upon the nature of the risk and the Site. This report can usually be prepared within 15-20 working days, although may take up to 25 depending upon regulatory response times.

2. You should ask the seller and other nearby residents whether or not flooding has occurred in the area previously. If it has, what was the impact and where were the affected areas;

3. Finally, prior to exchanging contracts, establish the terms of buildings and contents insurance for the property.
**Riparian Ownership**

Riparian ownership applies when someone owns a site with a watercourse inside or next to it. A riparian owner has rights and responsibilities under common law relating to the stretch of watercourse. Their primary responsibility is to keep it free of obstructions that could hinder normal water flow. Failure to carry out these responsibilities could result in civil action. A riparian owner should check before carrying out any works near to the edge of a river, as such works may be subject to byelaws. If infringed, this could lead to enforcement action by The Environment Agency.

There is a presumption that the boundary between properties abutting a watercourse is the centre line of that watercourse. A solicitor should check the deeds or the Index Map to confirm whether this is the case.

The Environment Agency published a useful guide called “Living on the Edge” for owners of land or property alongside a watercourse. Sometimes, The Environment Agency or other organisations managing flood risk have statutory rights of access to properties. This is for maintaining, repairing, or rebuilding parts of a watercourse. Or for accessing, or repairing monitoring equipment.

---

**Development Control**

A redevelopment site which is close to, but not adjoining, a watercourse may be subject to planning controls. The Environment Agency are normally consulted regarding any development within 20m of a main river and internal drainage boards should be contacted about developments close to drainage channels. Navigation authorities are normally consulted regarding any development within 250m of a canal, although this varies on a site by site basis.

The Environment Agency should be contacted with regards to development (other than minor development) in Flood Zones 2 and 3.

---

**Sewer Flooding**

In times of extreme rainfall events sewers can overflow and cause local flooding. Ofwat’s ‘DG5 - At Risk Registers’ record properties that have flooded from sewers and are at risk of flooding again, with separate registers for internal and external flooding. The At Risk Registers are maintained by each of the ten water and sewerage companies in England and Wales and details of properties subject to sewer flooding are normally kept for between two and five years. These registers are not necessarily complete as not all episodes of past flooding may be recorded. The relevant water and sewerage provider can answer specific enquiries. The response provided is based on the information held.

Sometimes, the water and sewerage provider is unable to confirm whether the site has flooded, but provides a response based on all properties connected to a local sewer network (normally up to ten houses). This is due to the way in which the data is collected.
Risk Management Options
Simple, practical steps to prepare for the event of flooding

Flooding can often be managed by the installation of flood protection measures either on/within the building(s) or across the site. Flood protection measures can be divided into two categories; flood resistance and flood resilience.

Both flood resistance and flood resilience solutions can be integrated with design proposals for new build properties or retro-fitted to existing properties. Specific flood protection packages can often include both resistance and resilience measures. What is suitable will depend on a number of factors including flood source, likely flood depths, property design and age.

Research conducted by CLG Sustainable Buildings Division and The Environment Agency revealed that installing flood resistance measures may be inappropriate where likely flooding will be deep. Certain types of building construction are unable to resist the pressure load placed on the exterior skin of the building by retained flood waters. Generally a flood depth between 0.6m and 1.0m above ground level is used as a benchmark to decide whether to consider flood resilience measures rather than rely on flood resistance measures. This is dependent on the age and construction of the property.

The costs below are for indicative budget purposes only. They are based on installing components of a standard design and colour. If the site requires bespoke products, these are likely to cost more (for example, if the site is in a conservation area, different colours may be required).

Guideline Costs for Resistance Measures

<table>
<thead>
<tr>
<th>Building feature</th>
<th>Cost estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 900mm single door</td>
<td>£750 + vat</td>
</tr>
<tr>
<td>Standard 1800mm double entrance door</td>
<td>£950 + vat</td>
</tr>
<tr>
<td>Large roller shutter door up to 2745mm span</td>
<td>£1420 + vat including channel</td>
</tr>
<tr>
<td>Standard garage door</td>
<td>£1400 - £1575</td>
</tr>
<tr>
<td>Standard window up to 1240mm span</td>
<td>£750</td>
</tr>
<tr>
<td>Large window 1240mm to 2150mm span</td>
<td>£550 - £700</td>
</tr>
<tr>
<td>Single air brick</td>
<td>£60 - £90</td>
</tr>
<tr>
<td>Double air brick</td>
<td>£80 - £230</td>
</tr>
<tr>
<td>Tanking of basement, walls, or floors</td>
<td>£25 - £50 per metre²</td>
</tr>
<tr>
<td>Simple non-return valve</td>
<td>£35 - £170</td>
</tr>
<tr>
<td>Sophisticated non-return valve</td>
<td>£670 - £900</td>
</tr>
</tbody>
</table>
River and Coastal Flooding

Flood Zones and Defences
This map shows The Environment Agency’s model of flood zones and physical defences.

Contains Ordnance Survey data © Crown copyright and database right 2015

- Client Site
- Main/Minor River
- Flood Storage
- Flood Defences
- Flood Zone 3
- Defended Areas
- Flood Zone 2

Not all features in legend may be present in above map.
## Flood Zones

<table>
<thead>
<tr>
<th>Question / Details</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any flood plains (Flood Zone 2) within 500m?</td>
<td>Yes</td>
</tr>
<tr>
<td>Type: Fluvial Models, Source: The Environment Agency, Boundary Accuracy: As Supplied.</td>
<td>On Site</td>
</tr>
<tr>
<td>Are there any flood plains in the event of an extreme flood (Flood Zone 3) within 500m?</td>
<td>Yes</td>
</tr>
<tr>
<td>Type: Fluvial Models, Source: The Environment Agency, Boundary Accuracy: As Supplied.</td>
<td>On Site</td>
</tr>
</tbody>
</table>

### What is it?

The Environment Agency model for river or sea flooding. This model does not take flood defences into account and is therefore an indicator of the worst case scenario where flood defences fail.

River flooding mainly happens when the river catchment (that is the area of land that feeds water into the river and the streams that flow into the main river) receives greater than usual amounts of water (for example through rainfall or melting of snow). The amount of run-off depends on the soil type, catchment steepness, drainage characteristics, agriculture and urbanisation as well as the saturation of the catchment. The extra water causes the level of the water in the river to rise above its banks or retaining structures.

Coastal flooding is the inundation of land areas along the coast caused by sea water rising above normal tidal conditions. Coastal flooding can arise from a combination of high tides, wind induced tidal surge, storm surge created by low pressure and wave action.

The Environment Agency split the country into ‘flood zones’:

- **Flood Zone 1**: The area where flooding from rivers or sea is very unlikely. There is less than 0.1% (1 in 1000) chance of flooding occurring each year.
- **Flood Zone 2**: The area of medium probability of flooding – a flood with an annual chance of occurring of between 1% (1 in 100 to 0.1% (1 in 1000) for river flooding and 0.5% (1 in 200) to 1% (1 in 1000) for coastal flooding.
- **Flood Zone 3a**: The area of high probability of flooding – a flood with an annual chance of occurring of 1% (1 in 100) or greater for river flooding and 0.5% (1 in 200) or greater for coastal flooding.
- **Flood Zone 3b**: The boundary between 3a and 3b is a planning decision made by the Local Authority. This information is usually in the strategic flood risk assessment. This area is a functional floodplain. It is an area which is designed to flood – a flood return period of 1 in 20 or less.

A full Flood Risk Assessment (FRA) is a bespoke report required under the National Planning Policy Framework for any development site within Flood Zones 2 or 3 and/or any development site larger than 1 hectare. These reports are generally prepared following liaison with the Local Planning Authority and the application of the sequential test.

### What could be the impact on the site?

The site (or part of it) is at a high risk of flooding from rivers and the sea, as defined by the regulatory body’s Flood Map. The risk of annual flooding is greater than 1% (from rivers) or greater than 0.5% (from the sea). All development proposals would need to be accompanied by a Flood Risk Assessment, in accordance with NPPF. Developments such as emergency services stations, basement dwellings and caravans, mobile homes and park homes for permanent residential use, etc. are not compatible with this level of risk. Significant planning constraints would apply to such developments as residential, care homes, hotels, short-let caravan parks, camping, etc. Parts of the site may be within an area of land where water has to flow or be stored in times of flood (>5% annual risk of flooding) within which severe planning constraints apply. It is recommended that a more detailed report (a FLOODSOLUTIONS Consult Report) is...
undertaken to further define the flood risk issues and potential development constraints. Please contact us so we can discuss your requirements and, if necessary, provide a quotation.

**Flood defences**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any flood defences within 500m?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**What is it?**

The Environment Agency provides data to show flood defences built in the last five years. The defences shown protect against river floods with a 1 percent (1 in 100) chance of happening each year, or floods from the sea with a 0.5 percent (1 in 200) chance of happening each year. These are shown together with some, but not all, older defences and defences which protect against smaller floods. Flood defences that are not yet shown and the areas that benefit from them will gradually be added.

For information on flood defences which are not yet shown on the map contact your local The Environment Agency Office.

**What could be the impact on the site?**

There are flood defences on the site. However, there is a residual risk of flooding should the protection standard of those defences be exceeded (and the defences overtopped) or should the defences fail. It is recommended that further investigations are undertaken into the standard of these defences. Please contact us for further information.

**Areas Protected by Flood Defences**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the site or any area within 500m benefit from flood defences?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**What is it?**

The Environment Agency provides data to show the areas of land that benefit from the flood defences shown, in the event of a river flood with a 1 per cent (1 in 100) chance of happening each year, or a flood from the sea with a 0.5 per cent (1 in 200) chance of happening each year. If the defences were not there, these areas would be flooded.

Flood defences do not completely remove the chance of flooding, however, and can be overtopped or fail in extreme weather conditions.

**What could be the impact on the site?**

The site is within an Area Benefiting from a Flood Defence, as defined by the regulatory body. There is therefore a residual risk that the site may flood if the protection standard of the defences is exceeded, or if the defences should fail. It is recommended that further investigations are undertaken into the standard of these defences. Please contact us for further information.

**Flood Storage Areas**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any flood storage areas within 500m?</td>
<td>No</td>
</tr>
</tbody>
</table>

**What is it?**

A flood storage area is a reservoir or field intended to fill with water in the event of a flood. It is designed as a flood resistance measure but their presence indicates that flooding could occur.
River and Coastal Flooding

What could be the impact on the site?

The site is over 500m from a Flood Storage Area as defined by the regulatory body. These areas store flood water during flood events. It is unlikely that any FSA presents any associated flood risk to the site.
Risk of Flooding From Rivers and Sea
This map shows The Environment Agency's model of flooding taking defences into account.
River and Coastal Flooding

Risk of River and Coastal Flooding

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the flood likelihood category for the site?</td>
<td>High</td>
</tr>
</tbody>
</table>

What is it?

The data in the Risk of Flooding from Rivers and Sea Property Flood Likelihood Database is sourced from The Environment Agency’s National Receptor Dataset. The information provided includes the flood likelihood category low, moderate, or significant according to the flood likelihood analysis. Some areas may be classified as having no result. This occurs where there is no output data from the analysis, but the area falls within the extreme flood outline (with a 0.1% or 1 in 1000 chance of flooding in any year).

What could be the impact on the site?

The site (or part of it) has been defined as being at Significant Flood Risk within the regulatory body’s risk assessment. This classification relates to the locality as a whole, rather than the individual site and relates only to the risk of coastal or river flooding. It is recommended that a more detailed report such as a FLOODSOLUTIONS Consult Report is undertaken to further define the flood risk to the site. Please contact us so we can discuss your requirements and, if necessary, provide a quotation.
Groundwater Flood Risk

This map shows a model of the risk of flooding from groundwater from data provided by GeoSmart Information Ltd.
Groundwater Flooding

Groundwater Flood Risk

Contains Ordnance Survey data © Crown copyright and database right 2015

- Client Site
- High Risk
- Moderate Risk
- Low Risk

Not all features in legend may be present in above map

Groundwater Flood Risk

Perseverance Mills Brook Court, Padiham, BURNLEY, Lancashire, BB12 7DY
Groundwater Flooding

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the risk of groundwater flooding at the site?</td>
<td>Low Risk</td>
</tr>
</tbody>
</table>

What is it?

Groundwater flooding occurs when groundwater levels increase sufficiently for the water table to intersect the ground surface. Groundwater flooding can occur in a variety of geological settings including valleys and in areas underlain by chalk, and in river valleys with thick deposits of alluvium and river gravels.

GeoSmart Information Ltd provides data to Landmark in relation to groundwater flooding. Through research and development, building on their expertise in addressing groundwater flooding issues for The Environment Agency and other clients in the UK, GeoSmart Information Ltd has developed algorithms and calibrated predictions of the risk of groundwater flooding occurring in England and Wales. This differs from other suppliers of data regarding groundwater flooding which only report on the susceptibility of groundwater flooding. Susceptibility merely has to be identified, whereas risk must be quantified. The resulting map is a 50x50m classification of groundwater flooding risk into four categories (Negligible, Low, Moderate and High). GeoSmart Information Ltd’s classifications are based on the level of risk, combining severity and uncertainty that a site will suffer groundwater flooding within a return period of about 100 years.

The map is a general purpose indicative screening tool, and is intended to provide a useful initial view for a wide variety of applications. However, it does not provide an alternative to a site specific assessment, and a detailed risk assessment should be used for any site where the impact of groundwater flooding would have significant adverse consequences.

What could be the impact on the site?

Information from GeoSmart Information Ltd indicates that there is a low risk of groundwater flooding in this area with a return period of 1 in 100 years.

There will be a remote possibility that incidence of groundwater flooding could lead to damage to property or harm to other sensitive receptors at, or near, this location. For sensitive land uses further consideration of site topography, drainage, and historical information on flooding in the local area should be undertaken by a suitably qualified professional. Should there be any flooding it is likely to be limited to seepages and waterlogged ground, damage to basements and subsurface infrastructure, and should pose no significant risk to life. Surface water flooding, however, may be exacerbated when groundwater levels are high.
Surface Water Flooding

Surface Water Flood Risk
This map shows the JBA model of potential surface water flood depths of a 1 in 200 year flood event.
Surface Water Flooding

Surface Water Flood Risk from JBA

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the risk of surface water flooding at the site following a 1 in 75 year rainfall event?</td>
<td>High</td>
</tr>
<tr>
<td>What is the risk of surface water flooding at the site following a 1 in 200 year rainfall event?</td>
<td>High</td>
</tr>
<tr>
<td>What is the risk of surface water flooding at the site following a 1 in 1000 year rainfall event?</td>
<td>High</td>
</tr>
</tbody>
</table>

What is it?

Surface water or ‘pluvial’ flooding results from rainfall running over ground before entering a watercourse or sewer. It is usually associated with high intensity rainfall events (typically greater than 3cm per hour) but can also occur with lower intensity rainfall or melting snow where the ground is already saturated, frozen, developed (for example in an urban setting) or otherwise has low permeability.

Information regarding the risk of natural surface water or pluvial flooding is provided by JBA Risk Management Ltd. The risk is classified by JBA into four categories, negligible, low (more than 10cm), medium (more than 30cm) and high (more than 1m) which reflect varying depths of potential surface water flooding during a range of rainfall events including 1:75 year, 1:200 year, and 1:1000 year.

Return periods are a measure of how likely flooding is to occur. They are commonly expressed as a ratio (for example 1 in 75 or 1:75). This means that this level of flooding is expected once in every 75 years.

What could be the impact on the site?

Information from JBA Risk Management indicates that there is a high risk of surface water (pluvial) flooding at the site within an anticipated 1 in 200 year flooding event. There site is in an area where incidences of surface water flooding are likely and could lead to property damage. In particular subterranean features, such as light wells, basement car parks and basement entrances will be susceptible to flooding. Anticipated flood depths could result in water entry causing internal flooding and property damage. Surface water flooding may also result in road closures impeding access and in exceptional cases may even pose a risk to life. Further consideration of the level of risk and suitable mitigation measures, by an appropriately qualified professional is recommended.
Historical Flooding

This map shows flood events and geological indications of floods from the past.

Contains Ordnance Survey data © Crown copyright and database right 2015

- Client Site
- Historical Floods
- Geo Indicators

Not all features in legend may be present in above map.
Historical Flooding

Historical Flood Events

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a flood event occurred in the past at or within 500m of the site?</td>
<td>No</td>
</tr>
</tbody>
</table>

What is it?

The Environment Agency has collated extensive records (including outlines) of flooding from rivers, the sea or groundwater which have occurred in England and Wales since c.1950. This information comes from various sources including maps, aerial photographs and private records. It is not necessarily comprehensive.

What could be the impact on the site?

The regulatory body’s records have no indication of past flooding within 500m of the site. As these records are not comprehensive, it may still be prudent to ask the relevant authorities and the site owner whether they are aware of any previous flooding at the site or in the surrounding area.

Geological Indicators of Flooding

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any geological deposits on or near to the site that show that it may have flooded in the past?</td>
<td>No</td>
</tr>
</tbody>
</table>

What is it?

The Geological Indicators of Flooding data set is based on the British Geological Survey’s Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). It was produced by characterising superficial ‘drift’ deposits on DiGMapGB-50 in terms of their likely vulnerability to flooding, either from coastal or inland water flow and reflects areas which may have flooded in the recent geological past.

What could be the impact on the site?

Data from the British Geological Survey indicates that the type of deposits in the locality of the site are not of the type normally associated with floodplains. However, this data should only be considered as complementary to the regulatory body’s Flood Map. This BGS data does not indicate the likelihood of flooding. Refer to the other assessments in this report for an overall assessment of flood risk.
Contacts

**Landmark Customer Services**
Landmark Information Group
Imperium
Imperial Way
Reading
RG2 0TD
0844 844 9966
helpdesk@landmark.co.uk

**GeoSmart Information Ltd**
New Zealand House
160 Abbey Foregate
Shrewsbury
SY2 6FD
www.geosmartinfo.co.uk
01179 229 931

**Environment Agency**
National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
03708 506 506
enquiries@environment-agency.gov.uk
www.gov.uk/government/organisations/environment-agency

**British Geological Survey**
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
0115 936 3143
www.bgs.ac.uk

**British Insurance Brokers' Association**
8th Floor
John Stow House
8 Bevis Marks
London
EC3A 7JB
0870 950 1790

**JBA Risk Management**
South Barn
Broughton Hall
Skipton
North Yorkshire
BD23 3AE
01756 799 919
info@jbarisk.com

For help with this report or to purchase a follow-on report
For advice on groundwater flooding
For advice on regulatory information
For advice on geological causes of groundwater flooding
For advice on flood insurance
For advice on JBA flood risk data
Contacts

**Burnley Borough Council**
Town Hall
Manchester Road
Burnley
BB11 1JA
01282 425011

For local planning information
Useful Information

Data Sources

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Dataset</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Environment Agency</td>
<td>- Flooding from Rivers or Sea</td>
</tr>
<tr>
<td></td>
<td>- Flooding from Rivers or Sea in an Extreme Flood</td>
</tr>
<tr>
<td></td>
<td>- Areas Benefiting from Flood Defences</td>
</tr>
<tr>
<td></td>
<td>- Flood Storage Areas</td>
</tr>
<tr>
<td></td>
<td>- Flood Defences</td>
</tr>
<tr>
<td></td>
<td>- Risk of Flooding from Rivers and Sea</td>
</tr>
<tr>
<td></td>
<td>- Historical Flood Events</td>
</tr>
<tr>
<td></td>
<td>- Detailed River Network</td>
</tr>
<tr>
<td></td>
<td>© Environment Agency and database right 2016</td>
</tr>
<tr>
<td>JBA</td>
<td>- Surface Water Flooding 1:75 year rainfall event</td>
</tr>
<tr>
<td></td>
<td>- Surface Water Flooding 1:200 year rainfall event</td>
</tr>
<tr>
<td></td>
<td>- Surface Water Flooding 1:1000 year rainfall event</td>
</tr>
<tr>
<td></td>
<td>© Copyright JBA Risk Management Limited 2008-2016</td>
</tr>
<tr>
<td>GeoSmart Information Ltd</td>
<td>- Groundwater Food Risk</td>
</tr>
<tr>
<td></td>
<td>© GeoSmart Information Limited 2016</td>
</tr>
<tr>
<td>British Geological Survey</td>
<td>- Geological Indicators of Flooding</td>
</tr>
<tr>
<td></td>
<td>Disclaimer: &quot;Some of the responses contained in this section are based on data and information provided by the Natural Environment Research Council (NERC) or its component bodies the 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, BGS nor Public Health England where applicable, gives any warranty, condition or representation as to the quality, accuracy or completeness of such information and all liability (including liability for negligence) arising from its use is excluded to the fullest extent permitted by law.&quot;</td>
</tr>
<tr>
<td>Ordnance Survey</td>
<td>- Height of Site Above Sea Level</td>
</tr>
<tr>
<td></td>
<td>- Vector Map District</td>
</tr>
</tbody>
</table>

Overall Opinion

In this section on the front page, we provide an opinion based on the flood risks that have been identified. The following table describes the possible outcomes of the report:
### Useful Information

#### Flood Risk Ratings

We provide an overall flood risk rating based on an assessment of the data provided within this report. It does so by asking the following questions:

1. **What is the overall risk of flooding, assuming flood defences fail or are absent or overtopped?**
   
   The answer to this question provides a worst case scenario assuming there are either no defences in the area, that any defences in the area could fail, primarily as a result of river or coastal flooding, or are overtopped by excessive flood volumes.

2. **Are there existing flood defences which might benefit the site?**
   
   This is based on the presence of any flood defences in the dataset provided by The Environment Agency within 500m of the site. It should be noted that a residual risk of flooding may be present if such defences failed. Flood defences do not generally protect the site against groundwater and surface water flooding.
   
   If defences are present within 500m, a further question is asked:

3. **What is the risk of flooding when these defences are operational?**
   
   This assesses the risk from flooding, assuming these defences work as intended and neither fail nor are overtopped.

Questions 1 and 3 are answered by one of six standard responses:

<table>
<thead>
<tr>
<th>Response</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>The overall flood risk rating for the site is assessed to be 'Negligible'. Existing datasets do not indicate any risk at the site itself, or any feature within the locality of the site, which would be expected to pose a threat of flooding. It is not considered that any further investigations are necessary in regard to flood risk.</td>
</tr>
<tr>
<td>Low</td>
<td>The overall flood risk rating for the site is assessed to be 'Low'. It is not considered necessary to undertake any other further investigations into the flood risk to the site. Sites over 1 hectare would require a Drainage Impact Assessment to accompany any planning application.</td>
</tr>
<tr>
<td>Low to Moderate</td>
<td>The overall flood risk rating for the site is assessed to be 'Low to Moderate'. The presence of such features as flood defences, flood storage areas and watercourses within the locality of the site suggests that there may be a risk of flooding to the site itself. Further investigations could be undertaken to further assess this risk.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The overall flood risk rating for the site is assessed to be 'Moderate'. Information from existing datasets suggests that there are certain features which may present a risk to the site and its occupants. Further assessment would normally be suggested as a prudent measure to clarify the risk of flooding at the site.</td>
</tr>
<tr>
<td>Moderate to High</td>
<td>The overall flood risk rating for the site is assessed to be 'Moderate to High'. Information from existing datasets suggests that there are certain features which may present a significant risk to the site and its occupants. Further assessment is usually recommended in order to clarify the risk of flooding at the site.</td>
</tr>
</tbody>
</table>
Useful Information

High  The overall flood risk rating for the site is assessed to be 'High', with a consequent risk to life and property. This means that existing datasets reveal significant flood risk issues which need to be addressed. Further assessment is usually recommended in order to clarify the risk of flooding at the site.

Development Risk

We comment on whether a full or partial Flood Risk Assessment (FRA) would be required in accordance with National Planning Policy Framework (NPPF). This is indicative only and is based on the size of the site (as supplied by the client) and the information in the data section of this report.

The NPPF sets out Government policy on development and flood risk. Its aims are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. Where new development is exceptionally necessary, NPPF aims to make it safe, without increasing flood risk elsewhere, and, where possible, reducing flood risk overall.

A separate Drainage Impact Assessment may be required in addition to an FRA to demonstrate that development of the site will not adversely affect flood risk elsewhere.

<table>
<thead>
<tr>
<th>Response</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (full)</td>
<td>If the site is to be redeveloped, a full Flood Risk Assessment is likely to be required which should include a Drainage Impact Assessment.</td>
</tr>
<tr>
<td>Yes (Drainage)</td>
<td>If the site is to be redeveloped, a full Flood Risk Assessment may not be required. However, given the size of the site, a Drainage Impact Assessment may be necessary.</td>
</tr>
<tr>
<td>No</td>
<td>If the site is to be redeveloped, no further flood assessment is likely to be required.</td>
</tr>
</tbody>
</table>

Flood Risk Gauges

The flood risk gauges provide a more detailed analysis of the risk from each of the four main types of flooding – river, coastal, groundwater and surface water. In addition, a fifth gauge provides an analysis of other factors (i.e. historical flood events, geological deposits which are indicative of past flooding, proximity to surface water features and elevation above sea level) that may affect the overall flood risk. For surface water flooding, only the risk rating generated from the 1:200 year rainfall event data is included in the overall risk assessment. The data on 1:75 year and 1:1000 year rainfall events is provided for information only.

This analysis takes into account any existing flood defences that are intended to protect the site and assumes that these work as designed. The analysis also takes into account the other information contained in those data sections of the report which are relevant to that particular type of flooding. The assessment of the risk as shown in the flood gauge should therefore take priority over the information in the individual data sections of the report.

Insurance

Landmark provides an indication of whether the level of flood risk at the site is likely to affect your ability to obtain insurance or if premiums could be high.

This assessment is is Landmark’s opinion, based on:

(a) the assumption that the site is used for commercial purposes (not residential)

(b) consideration of the following datasets and information only:

- Risk of Flooding from Rivers and the Sea supplied by the Environment Agency
- Surface water flooding data supplied by JBA Consulting

Our opinion does not take into account any historic episodes of flooding or previous insurance claims arising from flooding at the site.

Since April 2016 insurers of commercial property are all free to decide whether to offer insurance against flooding, at what price, and on what terms. They will have different attitudes to risk. This means there is no set of universal guidelines to whether insurance will be available against flood risk or not. This is why
Useful Information

we may have recommended you consult your proposed insurer prior to exchange of contracts, to establish the terms on which flood insurance would be offered.

The Flood Re scheme, which came into operation from April 2016, does not cover commercial property or mixed use property. So it will not assist the buyer or tenant of such sites, who is seeking cheaper or less restricted flood insurance.

For some sites, it is possible to reduce the risk of flooding by installing flood protection measures (either flood resistance or flood resilience measures). If these measures are appropriate to the site, and have been installed properly, then an insurer may offer better terms (lower premium, lower excess or fewer conditions to cover).

Limitations of the Report

The Sitecheck Flood report has been designed to satisfy basic flood-related environmental due-diligence enquiries for commercial properties. It is a desktop review of information provided by the client and from selected private and public databases. It does not include a site investigation, nor are specific information requests made of the regulatory authorities for any relevant information. Therefore, Landmark cannot guarantee that all issues of concern will be identified by this report, or that the data and information supplied to it by third parties is accurate and complete.

This report includes an assessment of surface water flooding which examines the risk of the general drainage network overflowing during periods of extreme rainfall. This report does not make a detailed site-specific assessment of the suitability of the existing drainage on the site. If this is required, then a site survey should be considered. The assessment of pluvial flooding does not take into account particular local or temporary factors that may cause surface water flooding. These could include blockage or failure of structures on or within watercourses, drains, foul sewers, water mains, canals and other water infrastructure; and any history of drains flooding at the site or in the locality. Surface water flooding can occur before surface water reaches the general drainage network, for example on hills and inclines.

The Risk of Flooding from Rivers and Sea dataset provided by The Environment Agency does take account of failure of flood defences but does not take into account particular local or temporary factors such as blockage. Data from The Environment Agency does not include flood risk from very small catchments as models of such small scale catchments are not considered to be reliable for UK-wide flood risk assessments. The potential impact of climate change on flood risk to the site would require further study.

When answering any questions within this report, current applicable legislation is taken into account. The data used in this report may have inherent limitations and qualifications.

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www.landmarkinfo.co.uk/Terms/Show/515
Important Consumer Protection Information

This search has been produced by Landmark Information Group Ltd, Imperium, Imperial Way, Reading, RG2 0TD. Telephone 0844 844 9966, Fax No. 0844 844 9980 email helpdesk@landmark.co.uk which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered firms maintain compliance with the Code.

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• sets out minimum standards which firms compiling and selling search reports have to meet
• promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals
• enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

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• at all times maintain adequate and appropriate insurance to protect consumers
• conduct business in an honest, fair and professional manner
• handle complaints speedily and fairly
• ensure that products and services comply with industry registration rules and standards and relevant laws
• monitor their compliance with the Code

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

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk
PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

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
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time
- Provide a final response, in writing, at the latest within 40 working days of receipt
- Liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:
Head of Customer Relations
Landmark Information Group Ltd
Landmark UK Property
Imperium
Imperial Way
Reading
RG2 0TD

Telephone: 0844 844 9966
Email: helpdesk@landmark.co.uk
Fax: 0844 844 9980

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,
Email: admin@tpos.co.uk

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.