

## **Appendix 12.1: Flood Risk Assessment**



**Tier Consult**

Unit 5, Office Village, Sandpiper Court  
Chester Business Park, Chester, CH4 9QZ  
01244 684900

## Flood Risk Assessment

### Project Excellence, Land at Wiggs Farm, Station Road, Coalville

Client: Barberry Bardon Ltd

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## Version History

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## Executive Summary

The proposed development would be expected to remain dry in all but the most extreme conditions. Providing the recommendations made in this Flood Risk Assessment (FRA) are instigated, flood risk from all sources would be minimised, the consequences of flooding are acceptable and the development would be in accordance with the requirements of the National Planning Policy Framework (NPPF).

This FRA demonstrates that the proposed development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of the NPPF. The development should not therefore be precluded on the grounds of flood risk.



## 1. Introduction

### 1.1 Background

This Flood Risk Assessment (FRA) has been prepared by Tier Consult at the request of Barberry Bardon Ltd for the proposed development on Wood Road, Ellistown, Bagworth, Coalville LE67 1GE. This FRA has been carried out in accordance with guidance contained in the National Planning Policy Framework (NPPF)<sup>1</sup>, associated National Planning Practice Guidance (NPPG)<sup>2</sup> and the NPPG 'Site-specific flood risk assessment checklist'. This FRA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe throughout the lifetime, taking climate change into account.

It is recognised that developments which are designed without regard to flood risk may endanger lives, damage property, cause disruption to the wider community, damage the environment, be difficult to insure and require additional expense on remedial works. The development design should be such that future users will not have difficulty obtaining insurance or mortgage finance, or in selling all or part of the development, as a result of flood risk issues.

### 1.2 National Planning Policy Framework (NPPF)

One of the key aims of the NPPF is to ensure that flood risk is taken into account at all stages of the planning process; to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest risk. It advises that where new development is exceptionally necessary in areas of higher risk, this should be safe, without increasing flood risk elsewhere, and where possible, reduce flood risk overall.

A risk-based approach is adopted at stages of the planning process, applying a source pathway receptor model to planning and flood risk. To demonstrate this, an FRA is required and should include:

- whether a proposed development is likely to be affected by current or future flooding from all sources;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate;
- if necessary, provide the evidence to the Local Planning Authority (LPA) that the Sequential Test can be applied; and
- whether the development will be safe and pass part c) of the Exception Test if this is appropriate.

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<sup>1</sup> Ministry of Housing, Communities and Local Government (2024) National Planning Policy Framework.

<sup>2</sup> Department for Communities and Local Government (2022) Planning Practice Guidance - Flood Risk and Coastal Change.



### **1.3 Report Structure**

This FRA has the following report structure:

- Section 2 details the sources of information that have been consulted;
- Section 3 describes the location area and the existing and proposed development;
- Section 4 outlines the flood risk to the existing and proposed development;
- Section 5 details the Sequential and Exception Tests;
- Section 6 describes the risk management methods used to mitigate all sources of flood risk; and
- Section 7 presents a summary and conclusions.



## 2. Sources of Information

### 2.1 Discussion with Regulators

Consultation and discussions with the relevant regulators have been undertaken during this FRA including the Environment Agency, the Local Planning Authority (LPA), the Lead Local Flood Authority (LLFA) and Sewerage Undertakers.

### 2.2 Environment Agency

The Flood and Water Management Act 2010 gives the Environment Agency a strategic overview role for all forms of flooding and coastal erosion. They also have direct responsibility for the prevention, mitigation and remediation of flood damage for main rivers and coastal areas. The Environment Agency is the statutory consultee with regards to flood risk and planning. Information regarding the current flood risk at the application site, local flood defences and flood risk has been obtained from the Environment Agency.

### 2.3 Hinckley and Bosworth Borough Council

Hinckley and Bosworth Borough Council is the LPA. Planning guidance written by Hinckley and Bosworth Borough Council regarding flood risk was consulted to assess the mitigation policies in place. The Hinckley and Bosworth Borough Council Level 1 Strategic Flood Risk Assessment (SFRA) which covers the site has been reviewed.

### 2.4 Leicestershire County Council

Leicestershire County Council is the LLFA has responsibilities for 'local flood risk', which includes surface runoff, groundwater and ordinary watercourses. Planning guidance written by Leicestershire County Council regarding flood risk was consulted to assess the mitigation policies in place. The Leicestershire County Council Preliminary Flood Risk Assessment (PFRA) which covers the site has been reviewed.

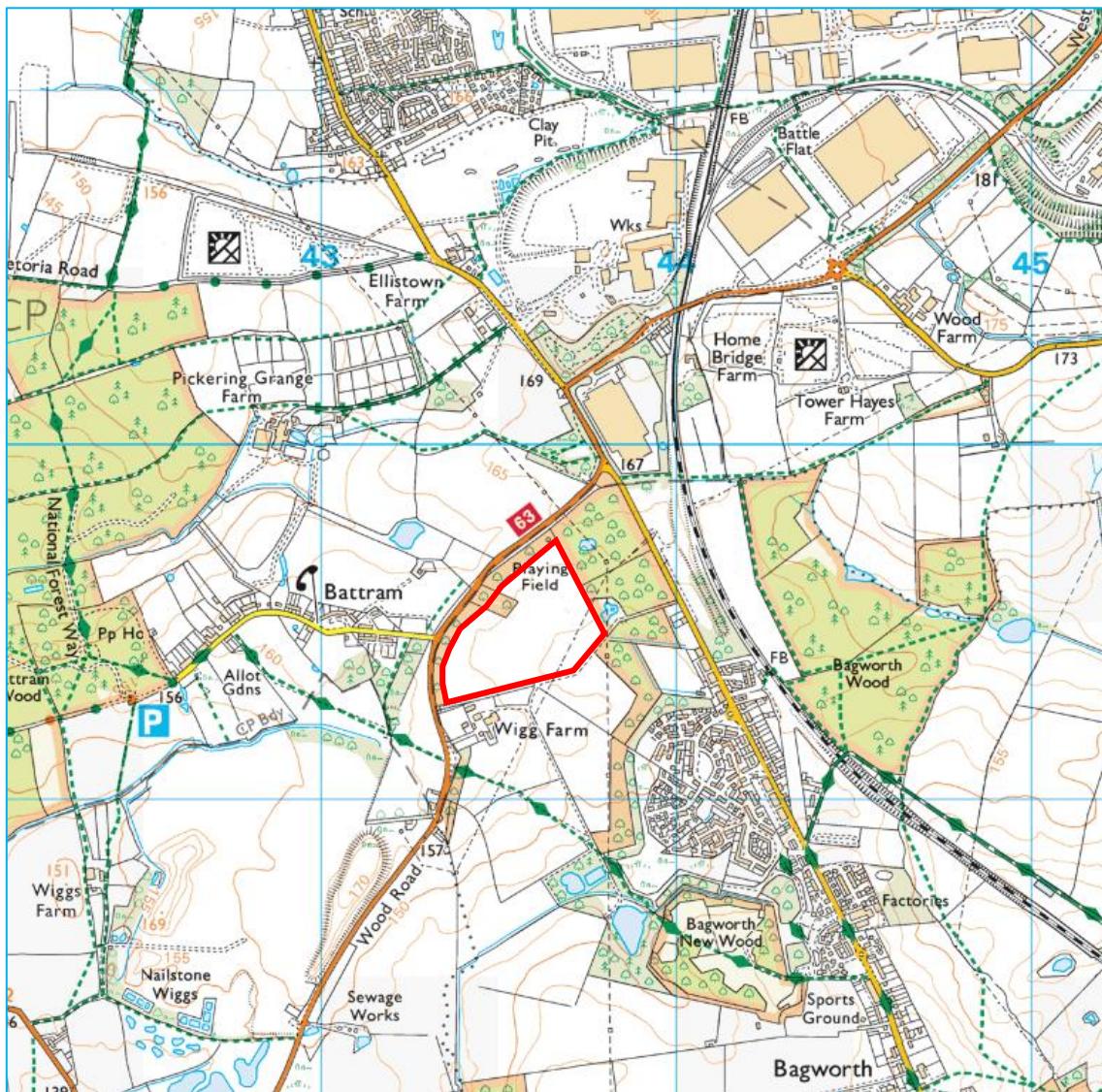
### 2.5 Severn Trent Water

Severn Trent Water is responsible for the disposal of wastewater and supply of clean for this area. Information with regards to sewer and water main flooding contained within the Hinckley and Bosworth Borough Council Level 1 SFRA has been consulted. All Water Companies have a statutory obligation to maintain a register of properties/areas which are at risk of flooding from the public sewerage system, and this is shown on the DG5 Flood Register.

### 3. Location & Description

#### 3.1 Site Location

The site is located on Wood Road, Ellistown, Bagworth, Coalville LE67 1GE (see Figure 3.1).



**Figure 3.1 - Site Location**

#### 3.2 Existing Development

The site is currently an agricultural field.

#### 3.3 Proposed Development

The proposed development is for a warehouse and associated infrastructure (see Appendix A).



### **3.4 Ground Levels**

The site falls from west to east with a maximum ground level of 162 metres Above Ordnance Datum (mAOD) and a minimum ground level of 152mAOD.

### **3.5 Catchment Hydrology / Drainage**

There are a number of drains and ponds located within the vicinity of the site.

### **3.6 Ground Conditions**

The British Geological Survey (BGS) Map indicates that the west of the site is underlain by the Oadby Member - diamicton. The bedrock deposits underlying the site consist of the Edwalton Member - mudstone.



## 4. Flood Risk

### 4.1 Sources of Flooding

All sources of flooding have been considered, these are; fluvial (river) flooding, tidal (coastal) flooding, groundwater flooding, surface water (pluvial) flooding, sewer flooding and flooding from artificial drainage systems/infrastructure failure.

### 4.2 Climate Change

Projections of future climate change, in the UK, indicate more frequent, short-duration, high intensity rainfall and more frequent periods of long duration rainfall. Guidance included within the NPPF recommends that the effects of climate change are incorporated into FRA. Recommended precautionary sensitivity ranges for peak rainfall intensities and peak river flows are outlined in the associated Planning Practice Guidance to the NPPF<sup>3</sup>. The flood risk assessments: climate change allowances guidance recommends that the central allowances are used.

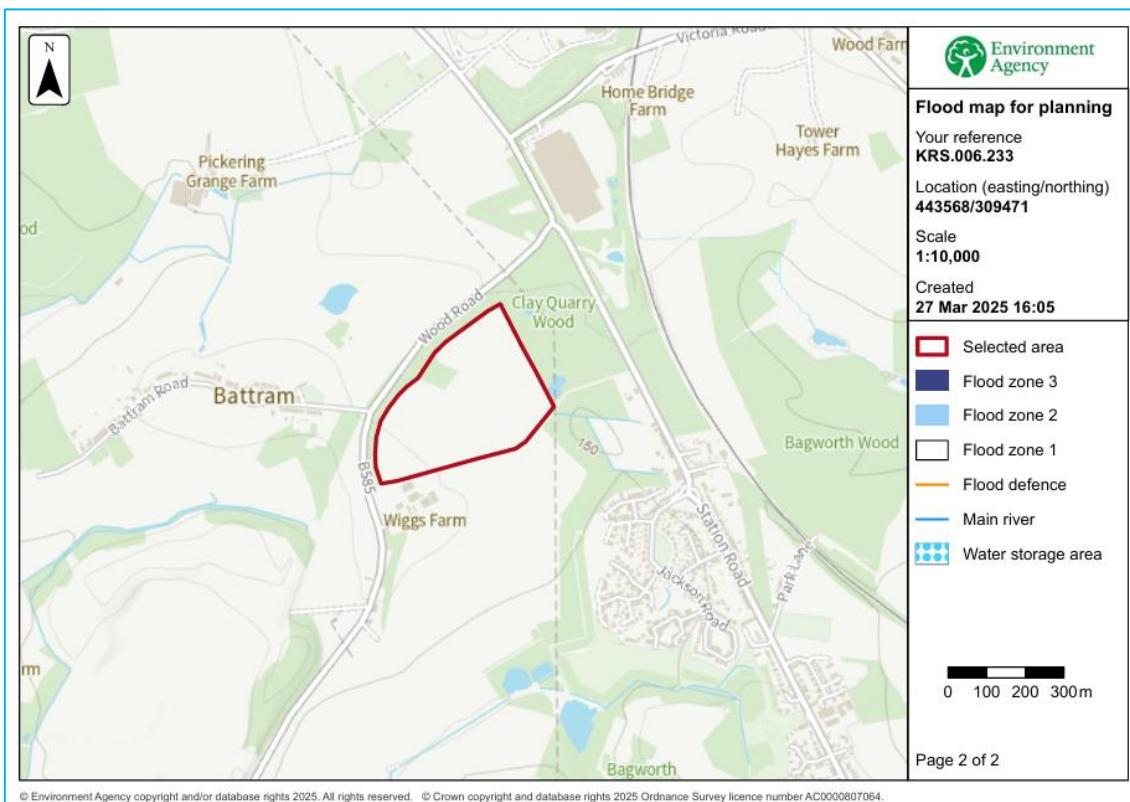
### 4.3 Environment Agency Flood Zones

A review of the Environment Agency's flood map indicates that the site is located within Flood Zone 1 and therefore has a 'low probability' of fluvial/tidal flooding as shown in Figure 4.1. Flood Zone 1 has less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).

The Flood Zones are the current best information on the extent of the extremes of flooding from rivers or the sea that would occur without the presence of flood defences, because these can be breached, overtopped and may not be in existence for the lifetime of the development. The Environment Agency Flood Zones and acceptable development types are explained in Table 4.1. Table 4.1 shows that all development types are generally acceptable in Flood Zone 1.

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<sup>3</sup> <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#high-allowances>



**Figure 4.1 - Environment Agency Flood Zones**

**Table 4.1 - Environment Agency Flood Zones and Appropriate Land Use**

Flood Zone	Probability	Explanation	Appropriate Land Use
Zone 1	Low	Less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%)	All development types generally acceptable
Zone 2	Medium	Between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% 0.1%) in any year	Most development type are generally acceptable
Zone 3a	High	A 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year	Some development types not acceptable
Zone 3b	'Functional Floodplain'	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local	Some development



		<p>circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:</p> <ul style="list-style-type: none"> <li>• land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or</li> <li>• land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).</li> </ul> <p>Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)</p>	types not acceptable
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#### 4.4 Hinckley and Bosworth Borough Council Level 1 Strategic Flood Risk Assessment

A review of the Hinckley and Bosworth Borough Council Level 1 SFRA confirms that the site is located within Flood Zone 1 and therefore has a 'low probability' of fluvial/tidal flooding as shown in Appendix B. Flood Zone 1 has less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).

#### 4.5 Flood Risk Vulnerability

In the PPG (Table 1) appropriate uses have been identified for the Flood Zones. Applying the Flood Risk Vulnerability Classification in Table 2 and 3 of the PPG, the existing and proposed development is classified as 'less vulnerable'. Table 4.2 of this report and Table 3 of the PPG state that 'less vulnerable' uses are appropriate within Flood Zone 1.

**Table 4.2 - Flood Risk Vulnerability and Flood Zone 'Compatibility' as identified in Table 3 of the PPG**

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception test required	✓	✓
Zone 3a	Exception test required	✓	✗	Exception test required	✓
Zone 3b 'Functional Floodplain'	Exception test required	✓	✗	✗	✗

Key: ✓: Development is appropriate, ✗: Development should not be permitted.



#### **4.6 Historic Flooding**

The Environment Agency data and the Hinckley and Bosworth Borough Council Level 1 SFRA show that the site has not historically flooded. There are no records of anecdotal information of flooding at the site including within the British Hydrological Society "Chronology of British Hydrological Events." Therefore, it has been concluded that the site has not historically flooded.

#### **4.7 Existing and Planned Flood Defence Measures**

It is understood that there are no maintained defences in this area. Further risk management measures will be used to protect the site from flooding these are discussed in Section 6.0.

#### **4.8 Fluvial (river) Flooding**

The Hinckley and Bosworth Borough Council Level 1 SFRA shows that the site will not be inundated with floodwater for all events up to and including the 1 in 100 year (+50%) and 1 in 1000 year events. The site is not located within the vicinity of fluvial flooding sources and the risk of fluvial flooding is considered to be not significant.

#### **4.9 Tidal (coastal) Flooding**

The site is not located within the vicinity of tidal flooding sources and the risk of tidal flooding is considered to be not significant.

#### **4.10 Groundwater Flooding**

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded. Groundwater flooding tends to occur sporadically in both location and time. When groundwater flooding does occur, it tends to mostly affect low-lying areas, below surface infrastructure and buildings (for example, tunnels, basements and car parks) underlain by permeable rocks (aquifers).

The Hinckley and Bosworth Borough Council Level 1 SFRA shows that the site has a very low risk of groundwater flooding. The risk of groundwater emergence is considered low. Furthermore, there are no records of groundwater flooding at or near to the site and no below ground infrastructure is proposed. It can therefore be concluded that the risk of groundwater flooding is not significant.

#### **4.11 Surface Water (pluvial) Flooding**

The soil condition at the site and within the vicinity of the site and the topography of the site suggest that the site is relatively well drained and surface water flooding would not be expected to accumulate to any significant depths. Surface water flooding tends to occur sporadically in both location and time such surface water would tend to be confined to the streets around the development.

Figure 4.2 confirms that for the present day the majority of the site has a very low risk of surface water flooding with less than a 1 in 1000 (0.1%) annual probability of flooding in any year. However, a small proportion of the Site has a low to high risk of surface water flooding of 1 in 1000 (0.1%) to 1 in 30 (3.3%) annual probability of flooding in any year.

Figure 4.3 confirms that when climate change is taken into account that the majority of the site has a very low risk of surface water flooding with less than a 1 in 1000 (0.1%) annual probability of flooding in any year between 2040 and 2060. However, a small proportion of the Site has a low to high risk of surface water flooding with a 1 in 1000 (0.1%) to 1 in 30 (3.3%) annual probability of flooding in any year between 2040 and 2060.

Figures 4.2 and 4.3 shows that the water depths would be minimal and would only affect a very small proportion of the site. This is confirmed within the Hinckley and Bosworth Borough Council Level 1 SFRA.

It can therefore be concluded that the risk of surface water flooding is of low significance. The risk from the surface water sources will be managed and mitigated by using a number of flood mitigation measures to manage and reduce the overall flood risk at the site (see Section 6.0).



**Figure 4.2 - Environment Agency Surface Water Flood Map: Present Flooding Extent**



**Figure 4.3 - Environment Agency Surface Water Flood Map: Future Flooding Extent (between 2040 and 2060)**

#### 4.12 Sewer Flooding

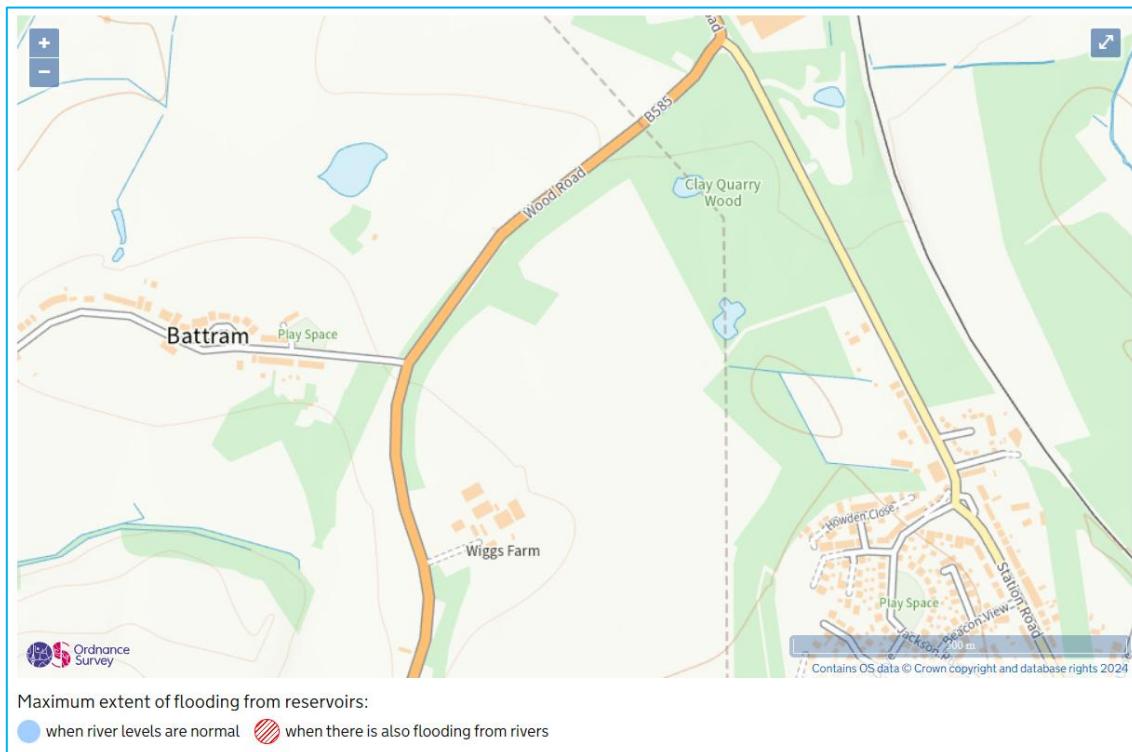
Sewer flooding occurs when urban drainage networks become overwhelmed and maximum capacity is reached. This can occur if there is a blockage in the network causing water to back up behind it or if the sheer volume of water draining into the system is too great to be handled. Sewer flooding tends to occur sporadically in both location and time such flood flows would tend to be confined to the streets around the development.

There are existing public sewers within the vicinity of the site these will inevitably have a limited capacity so in extreme conditions there would be surcharges, which may in turn cause flooding. Flood flows could also be generated by burst water mains, but these would tend to be of a restricted and much lower volume than weather generated events and so can be discounted for the purposes of this assessment. Given the design parameters normally used for drainage design in recent times and allowing for some deterioration in the performance of the installed systems, which are likely to have been in place for many years, an appropriate flood risk probability from this source could be assumed to have a return period in the order of 1 in 10 to 1 in 30 years.

The provision of adequate level difference between the ground floors and adjacent ground level would reduce the annual probability of damage to property from this source to 1 in 100 years or less. Therefore, sewer flooding poses a low flood risk to the site. It can therefore be concluded that the risk of sewer flooding is of low significance. The risk from the sewer sources will need be managed and mitigated by using a number of flood mitigation measures to manage and reduce the overall flood risk at the site (see Section 6.0).

#### 4.13 Flooding from Artificial Drainage Systems/Infrastructure Failure

There are no other nearby artificial water bodies, water channels and artificial drainage systems that could be considered a flood risk to the site. The Environment Agency Reservoir flood map shows that the site is not at risk of reservoir flooding (see Figure 4.4). The risk of flooding from flooding from artificial drainage systems/infrastructure failure is considered to be not significant.



**Figure 4.4 - Environment Agency Reservoir Flood Map**

#### 4.14 Effects of the Development on Flood Risk

There will be no loss of floodplain storage capacity and the proposed development will have no impact on the movement of water.

#### 4.15 Summary of Site-Specific Flood Risk

A summary of the sources of flooding and a review of the risk posed by each source at the site is shown in Table 4.3.

The site is not at risk of flooding from a major source (e.g. fluvial and/or tidal). The site has a 'low probability' of fluvial/tidal flooding as the site is located within Flood Zone 1 with less than a 1 in 1000 annual probability of river/tidal flooding in any year (<0.1%). A number of secondary flooding sources have been identified which may pose a low risk to the site. These are:

- Surface Water (pluvial) Flooding



- Sewer Flooding

The risk of flooding from all sources is considered to be low or not significant. The flooding sources will only inundate the site to a relatively low water depth and water velocity, will only last a short period of time, in very extreme cases and will not have an impact on the whole of the proposed development site.

The proposed development is classified as 'less vulnerable,' 'less vulnerable' uses are appropriate within Flood Zone 1 after the completion of a satisfactory FRA. The flood risk at the site, will be further managed and mitigated by using a number of risk management techniques, and mitigation strategies to manage and reduce the overall flood risk at the site.

In conclusion, the flood risk to the site can be considered to be limited; the site is situated in Flood Zone 1, with a low or very low annual probability of flooding and from all sources. The site is unlikely to flood except in very extreme conditions.

**Table 4.3 - Risk Posed by Flooding Sources**

Sources of Flooding	Potential Flood Risk	Potential Source	Probability/Significance
Fluvial (river) Flooding	No	None Reported	Not significant
Tidal (coastal) Flooding	No	None Reported	Not significant
Groundwater Flooding	No	None Reported	Not significant
Surface Water (pluvial) Flooding	Yes	Low Spots	Low
Sewer Flooding	Yes	Local Sewers	Low
Flooding from Artificial Drainage Systems/Infrastructure Failure	No	None Reported	Not significant



## 5. Sequential Approach

### 5.1 Sequential and Exception Tests

The Sequential and Exception Tests ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. The approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. The flood risk posed to the site can be considered to be limited; the site is located within Flood Zone 1 and has a low or very low annual probability of flooding from all sources. The site is unlikely to flood except in very extreme conditions.

Therefore, the Sequential and Exception Tests will not need to be undertaken as part of this planning application.



## 6. Risk Management

### 6.1 Introduction

In this flood zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout, form of the development and the use of flood mitigation measures including SuDS techniques. The flooding sources will have to be mitigated on the site by using a number of techniques, and mitigation strategies to manage and reduce the overall flood risk at the site. These will be used to ensure the development will be safe and there is:

- Minimal risk to life;
- Minimal disruption to people living and working in the area;
- Minimal potential damage to property;
- Minimal impact of the proposed development on flood risk generally; and;
- Minimal disruption to natural heritage.

### 6.2 Minimum Floor Level

There is no minimum finished floor level proposed as a result of flooding. However, it is recommended that the building is set above the ground level to enable the full capacity of any secondary flood conveyance to be utilised.

### 6.3 Flood Resilience and Resistance

The development of the layout should always consider that the site is potentially at risk from an extreme event and as such the implementation of flood resilience and resistance methods should be assessed. Relatively simple measures such as raising utility entry points, using first floor or ceiling down electrical circuits and sloping landscaping away from properties can be easily and economically incorporated into the development of the site.

### 6.4 Access and Egress

The site and surrounding area is located within Flood Zone 1 therefore a permanently safe and dry access can be maintained.

### 6.5 Flooding Consequences

The mitigation measures detailed above show that the flood risk can be effectively managed and therefore the consequences of flooding are acceptable. In conclusion, the flood risk to the site can be considered to be limited; the site is situated in Flood Zone 1, with a low or less annual probability of flooding and from all sources.



## 7. Summary and Conclusion

### 7.1 Introduction

This report presents an FRA in accordance with the NPPF for the proposed development on Wood Road, Ellistown, Bagworth, Coalville LE67 1GE. This FRA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will need to be managed so that the development remains safe throughout the lifetime, taking climate change into account.

### 7.2 Flood Risk

The site is not at risk of flooding from a major source (e.g. fluvial and/or tidal). The site has a 'low probability' of fluvial/tidal flooding as the site is located within Flood Zone 1 with less than a 1 in 1000 annual probability of river/tidal flooding in any year (<0.1%). A number of secondary flooding sources have been identified which may pose a low risk to the site. These are:

- Surface Water (pluvial) Flooding
- Sewer Flooding

The risk of flooding from all sources is considered to be low or not significant. The flooding sources will only inundate the site to a relatively low water depth and water velocity, will only last a short period of time, in very extreme cases and will not have an impact on the whole of the proposed development site.

The proposed development is classified as 'less vulnerable,' 'less vulnerable' uses are appropriate within Flood Zone 1 after the completion of a satisfactory FRA. The flood risk at the site, will be further managed and mitigated by using a number of risk management techniques, and mitigation strategies to manage and reduce the overall flood risk at the site.

In conclusion, the flood risk to the site can be considered to be limited; the site is situated in Flood Zone 1, with a low or very low annual probability of flooding and from all sources. The site is unlikely to flood except in very extreme conditions.

### 7.3 Sequential and Exception Tests

The development proposals should be considered by the LPA to satisfy the Sequential and Exception Tests as set out in the NPPF.

### 7.4 Risk Management

The flooding sources will be managed on the site by using a number of mitigation strategies to manage and reduce the overall flood risk at the site and will ensure the development will be safe. Measures used:



**Minimum Floor Level** - There is no minimum finished floor level proposed as a result of flooding. However, it is recommended that the building is set above the ground level to enable the full capacity of any secondary flood conveyance to be utilised.

**Flood Resilience and Resistance** - The development of the layout should always consider that the site is potentially at risk from an extreme event and as such the implementation of flood resilience and resistance methods should be assessed. Relatively simple measures such as raising utility entry points, using first floor or ceiling down electrical circuits and sloping landscaping away from properties can be easily and economically incorporated into the development of the site.

**Access and Egress** - The site and surrounding area is located within Flood Zone 1 therefore a permanently safe and dry access can be maintained.

## 7.5 Conclusion

In conclusion, the proposed development, would be expected to remain dry in all but the most extreme conditions. Providing the recommendations made in this FRA are instigated, flood risk from all sources would be minimised, the consequences of flooding are acceptable and the development would be in accordance with the requirements of the NPPF.

This FRA demonstrates that the proposed development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of the NPPF. The development should not therefore be precluded on the grounds of flood risk.



## Appendix A – Proposed Site Layout

The following risks are identified as unusual or unfamiliar to a competent contractor

## CONSTRUCTION

## DEMOLITION RISKS (FUTURE)

It is assumed that all work will be carried out by a competent contractor working, where appropriate, to an approved method statement

## Area Schedule - GIA

Name	Area (m <sup>2</sup> )	Area (ft <sup>2</sup> )
Forklift Maintenance - GIA	408 m <sup>2</sup>	4,396 ft <sup>2</sup>
In Gatehouse - GIA	35 m <sup>2</sup>	374 ft <sup>2</sup>
Office - First - GIA	608 m <sup>2</sup>	6,545 ft <sup>2</sup>
Office - Second - GIA	625 m <sup>2</sup>	6,725 ft <sup>2</sup>
Office - Third - GIA	645 m <sup>2</sup>	6,945 ft <sup>2</sup>
Out Gatehouse - GIA	16 m <sup>2</sup>	169 ft <sup>2</sup>
Quality Control Office - GIA	170 m <sup>2</sup>	1,828 ft <sup>2</sup>
Satellite Gatehouse - GIA	4 m <sup>2</sup>	47 ft <sup>2</sup>
Maintenance Unit - Ground - GIA	519 m <sup>2</sup>	5,585 ft <sup>2</sup>
Maintenance Unit - First - GIA	103 m <sup>2</sup>	1,107 ft <sup>2</sup>
Warehouse - GIA	31,726 m <sup>2</sup>	341,497 ft <sup>2</sup>
Total GIA - All Floors*	35,504 m <sup>2</sup>	382,161 ft <sup>2</sup>

\* Excludes Quality Control Building. Includes Quality Control Office.

## Key:



## Area Schedule - Site

Name	Hectares	Acres
Planning Site Boundary	14.64	36.18

## Underside of Haunch Heights (AFFL)

- Warehouse: 15.25m
- Forklift: 5m
- Main Offices: 15m
- VMU: 7.25m
- QC: 5.5m

## Parking Quantities

Car Parking spaces - 201  
including: 13 Disabled spaces / 10 Car Share / 20 EV Spaces  
(whole car park to be passively ducted)

HGV External Parking Spaces - 156  
(not including Loading Bays, Dock Levellers, Resolution Bays, HGV Cab Charging, Quality Control Building, Fuel Station, Weighbridge or Queue Lanes)

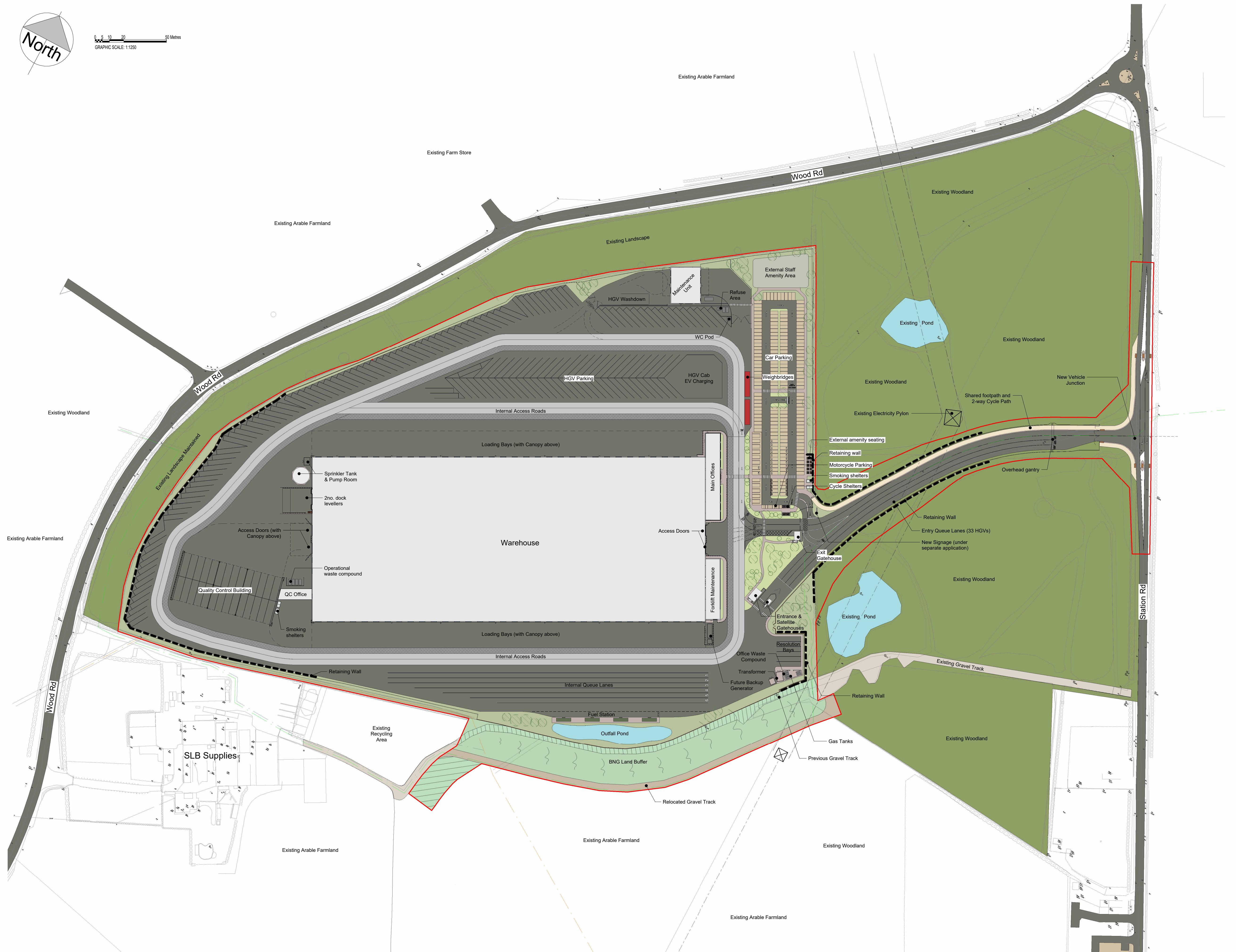
Canopy Dock Doors - 67

Level Access Doors - 2

Motorcycle Spaces - 6

Cycle Spaces - 48

Refer to DTA Transport assessment  
for vehicle parking quantities rationale  
associated with this bespoke scheme.



**bhb**  
architects

LICHFIELD  
01543 254357

CHELTENHAM  
01242 521608

Project Excellence  
Proposed Site Plan - Orientated  
Barberry Bardon Ltd

DRAWING NO. 4092 - 06  
REV. B DATE FEB 25  
PLANNING DRN CHK ST SCALE 1:1250 @ A1

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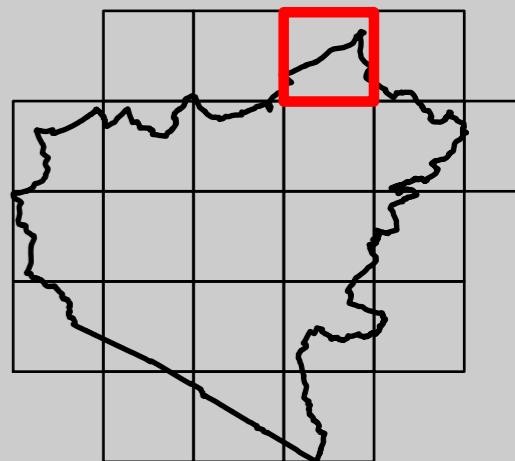


## **Appendix B – Hinckley and Bosworth Borough Council Level 1 SFRA Flood Risk Map**

**HINCKLEY AND BOSWORTH BOROUGH  
LEVEL 1 STRATEGIC FLOOD RISK  
ASSESSMENT**

**APPENDIX A: GEOPDF FLOOD RISK MAPPING**

**INDEX GRID: A4**



**Note: All layers are turned off by default.  
Click the box next to the layer of interest to**

<u>Authority Information</u>		<u>Climate Change</u>
<input checked="" type="checkbox"/>	Council Boundary	<input type="checkbox"/> Climate Change Central
<input type="checkbox"/>	Main Rivers	<input type="checkbox"/> Climate Change Higher Central
<input type="checkbox"/>	Detailed River Network	<input type="checkbox"/> Climate Change Upper
<input type="checkbox"/>		<input type="checkbox"/> Indicative Flood Zone 2
<u>Flood Zones</u>		<u>Areas Susceptible to Groundwater Flooding</u>
<input type="checkbox"/>	Flood Zone 3b	<input type="checkbox"/> >= 75%
<input type="checkbox"/>	Indicative Flood Zone 3b	<input type="checkbox"/> >= 50% <75%
<input type="checkbox"/>	Flood Zone 3a	<input type="checkbox"/> >= 25% <50%
<input type="checkbox"/>		<input type="checkbox"/> < 25%
<u>Surface Water</u>		<u>Historical Flooding</u>
<input type="checkbox"/>	RoFfSW 3.3% AEP	<input type="checkbox"/> Historic Flooding
<input type="checkbox"/>	RoFfSW 1% AEP	<input type="checkbox"/>
<input type="checkbox"/>	RoFfSW 0.1% AEP	
<u>Emergency Planning</u>		<u>Defences</u>
<input type="checkbox"/>	Flood Warning Areas	<input type="checkbox"/> demountable defence
<input type="checkbox"/>		<input type="checkbox"/> embankment
		<input type="checkbox"/> wall

0 0.35 0.7 1.4 Km

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