



UNIVERSAL DESTINATIONS & EXPERIENCES UK PROJECT

Former Kempston Hardwick Brickworks
and adjoining land, Bedford

Environmental Statement Volume 3

Appendix 12.1 - Flood Risk Assessment

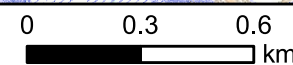
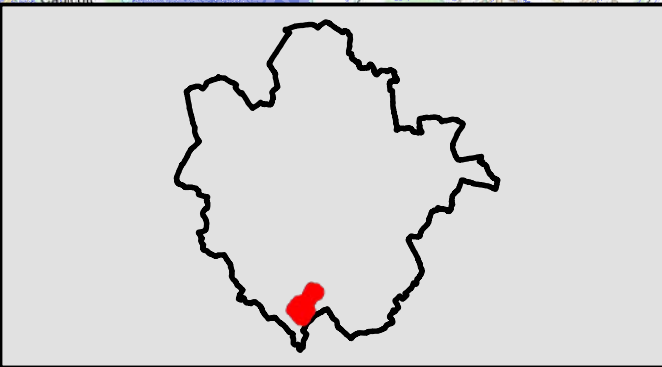
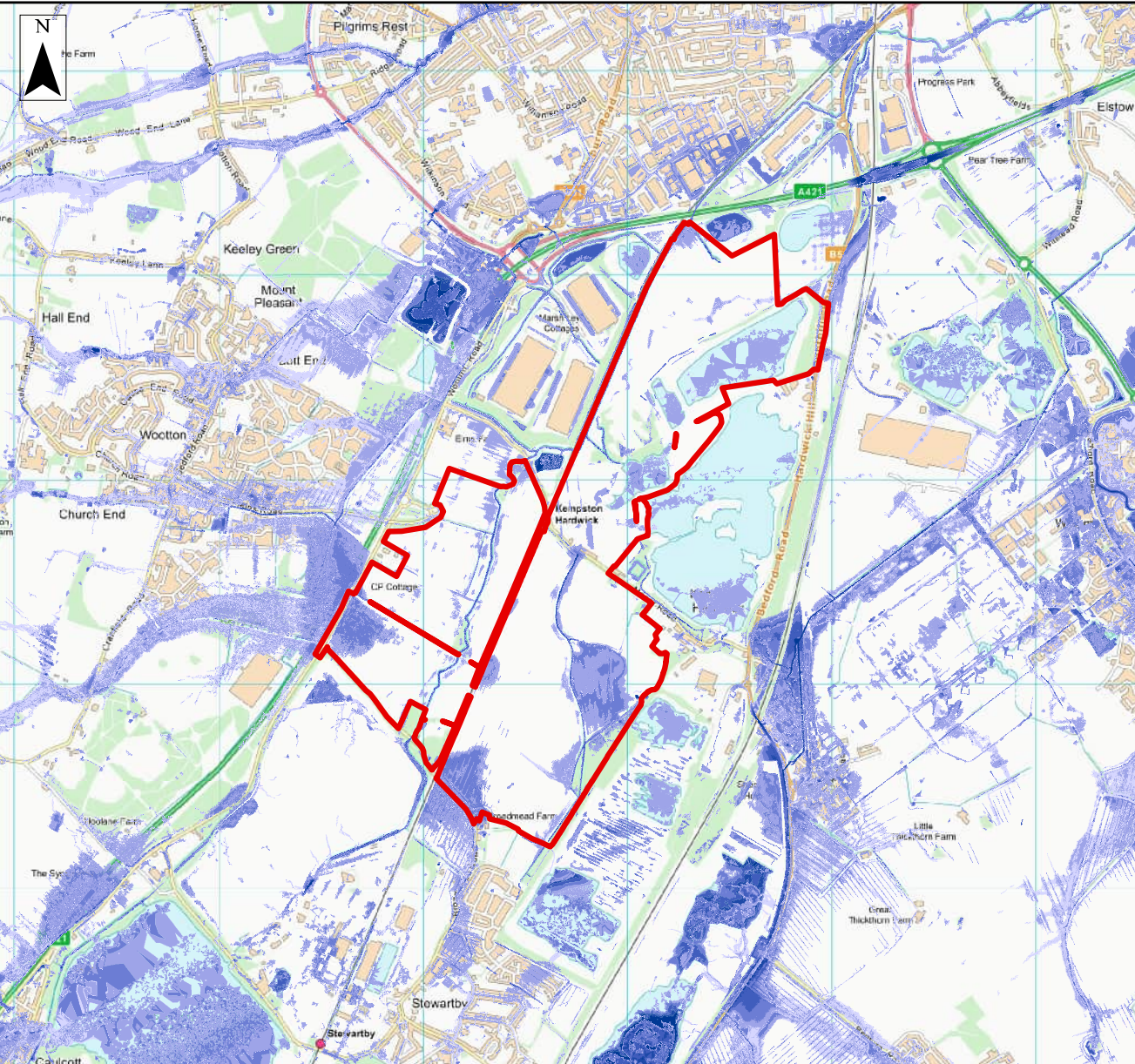
Part 4/6

Report reference: 4.12.1.0

Revision number: 00

Date: June 2025





- Authority Information**
- ☒ Authority Boundary
 - ☒ Site Boundary
 - ☐ Watercourses
- EA Flood Alert and Warning Areas**
- ☐ Flood Warning
 - ☐ Flood Alert

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JBA consulting

Bedford Borough Council Level 2 Strategic Flood Risk Assessment

Legend

To use: Click on check box to turn a layer on/off

Fluvial Flood Zones

- ☐ Indicative Flood Zone 3b
- ☐ Flood Zone 3b
- ☐ Flood Zone 3a
- ☐ Flood Zone 2

* Indicative Flood Zone 3b is the Functional Floodplain-land where water can flow or be stored during a flood event.

Fluvial Climate Change Extent (Modelled)

- ☐ 1% AEP plus Central
- ☐ 1% AEP plus Higher Central
- ☐ 1% AEP plus Upper End

Historic

- ☐ Historic Flood Map

Susceptibility to Groundwater Flooding (EA)

- ☐ < 25%
- ☐ >= 25% < 50%
- ☐ >= 50% < 75%
- ☐ >= 75%

Risk of Flooding from Surface Water (EA)

- ☐ 3.3% AEP Extent
- ☐ 1% AEP Extent
- ☐ 0.1% AEP Extent

Flood Defences

- ☐ Bridge Abutment
- ☐ Demountable Defence
- ☐ Embankment
- ☐ Flood Gate
- ☐ High Ground
- ☐ Wall

Risk of Flooding from Rivers and Sea (EA)

- ☐ Very Low
- ☐ Low
- ☐ Medium
- ☐ High

Surface Water Depth (m)

- ☒ 3.3% AEP
- ☒ 1% AEP
- ☒ 0.1% AEP

0.00 - 0.15
0.15 - 0.30
0.30 - 0.60
0.60 - 0.90
0.90 - 1.20
> 1.20

Surface Water Depth plus Climate Change Allowances (m)

- ☐ 1% AEP Event (+20%) CC
- ☐ 1% AEP Event (+40%) CC

0.0 - 0.3
0.3 - 0.6
0.6 - 1.1
1.1 - 1.8
1.8 - 4.8

Surface Water Velocity (m/s)

- ☐ 3.3% AEP
- ☐ 1% AEP
- ☐ 0.1% AEP

0.00 - 0.25
0.25 - 0.50
0.50 - 1.00
1.00 - 2.00
> 2.00

Surface Water Velocity plus Climate Change Allowances (m/s)

- ☐ 1% AEP Event (+20%) CC
- ☐ 1% AEP Event (+40%) CC

0 - 0.2
0.2 - 0.5
0.5 - 0.8
0.8 - 1.4
1.4 - 6.8

Surface Water Hazard

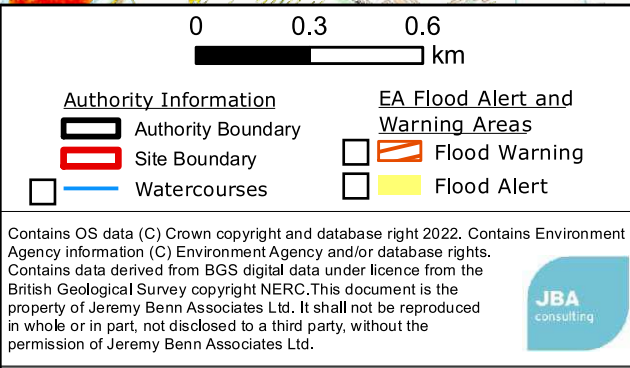
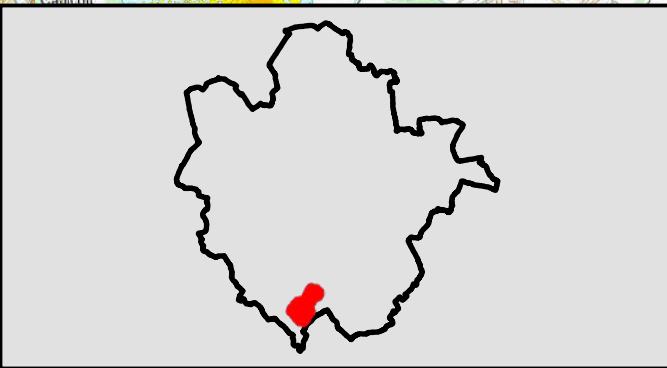
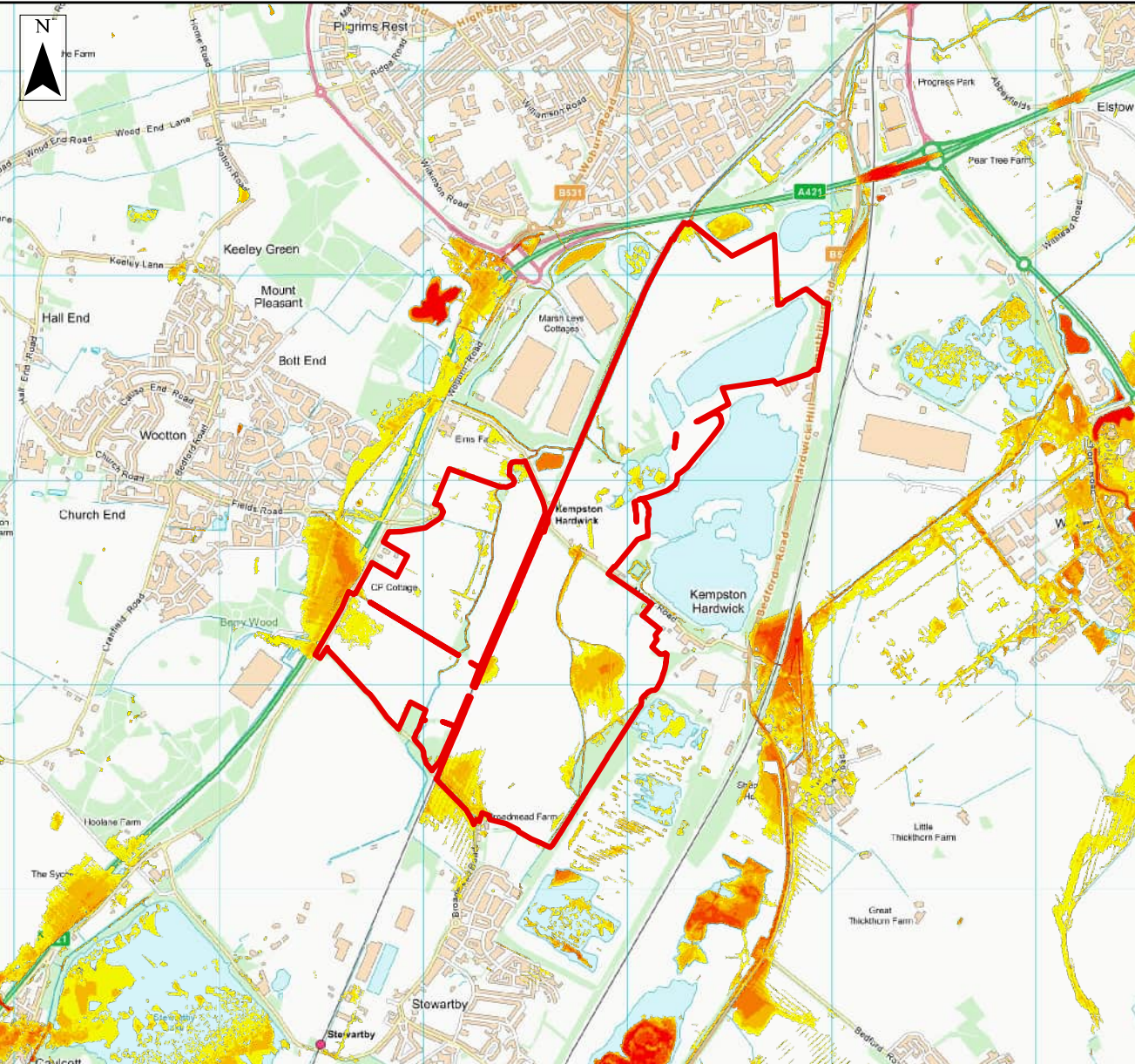
- ☐ 3.3% AEP
- ☐ 1% AEP
- ☐ 0.1% AEP

Caution
Danger for Some
Danger for Most
Danger for All

Surface Water Hazard plus Climate Change Allowances

- ☐ 1% AEP Event (+20%) CC
- ☐ 1% AEP Event (+40%) CC

Caution
Danger for Some
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- ☐ Medium
- ☐ High

Surface Water Depth (m)

- ☐ 3.3% AEP
- ☐ 1% AEP
- ☐ 0.1% AEP
- ☐ 0.00 - 0.15
- ☐ 0.15 - 0.30
- ☐ 0.30 - 0.60
- ☐ 0.60 - 0.90
- ☐ 0.90 - 1.20
- ☐ > 1.20

Surface Water Depth plus Climate Change Allowances (m)

- ☒ 1% AEP Event (+20%) CC
- ☒ 1% AEP Event (+40%) CC
- ☐ 0.0 - 0.3
- ☐ 0.3 - 0.6
- ☐ 0.6 - 1.1
- ☐ 1.1 - 1.8
- ☐ 1.8 - 4.8

Surface Water Velocity (m/s)

- ☐ 3.3% AEP
- ☐ 1% AEP
- ☐ 0.1% AEP
- ☐ 0.00 - 0.25
- ☐ 0.25 - 0.50
- ☐ 0.50 - 1.00
- ☐ 1.00 - 2.00
- ☐ > 2.00

Surface Water Velocity plus Climate Change Allowances (m/s)

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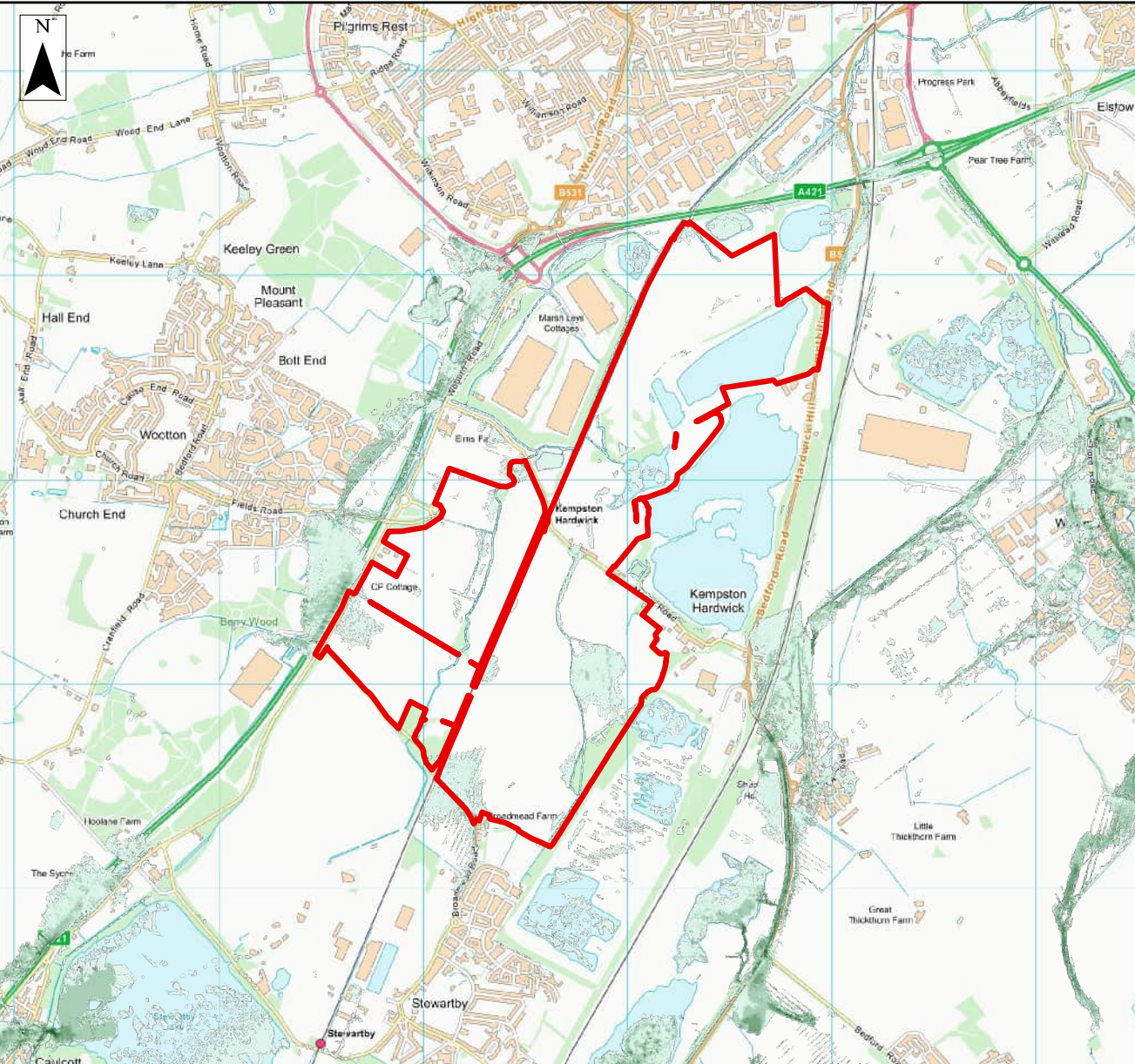
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Danger for Most

Danger for All

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- ☐ 0.90 - 1.20
- ☐ > 1.20

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- ☐ 0.00 - 0.25
- ☐ 0.25 - 0.50
- ☐ 0.50 - 1.00
- ☐ 1.00 - 2.00
- ☐ > 2.00

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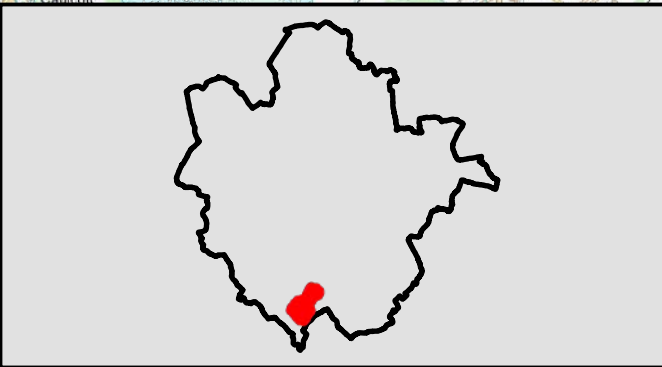
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0 0.3 0.6 km

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