

Sandwell Level 2 Strategic Flood Risk Assessment (SFRA)

Appendix A.2 – SM2 Lion Farm

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35. RoFSW +CC 1% AEP Depth
36. RoFSW +CC 3.3% AEP Depth
37. RoFSW +CC 0.1% AEP Hazard
38. RoFSW +CC 1% AEP Hazard
39. RoFSW +CC 3.3% AEP Hazard
40. RoFSW +CC 0.1% AEP Velocity
41. RoFSW +CC 1% AEP Velocity
42. RoFSW +CC 3.3% AEP Velocity
43. RoFSW +CC Extents



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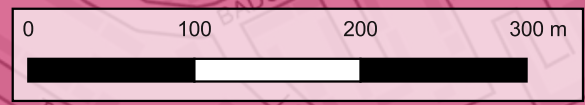
Bedrock Geology

Legend

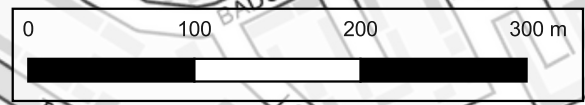
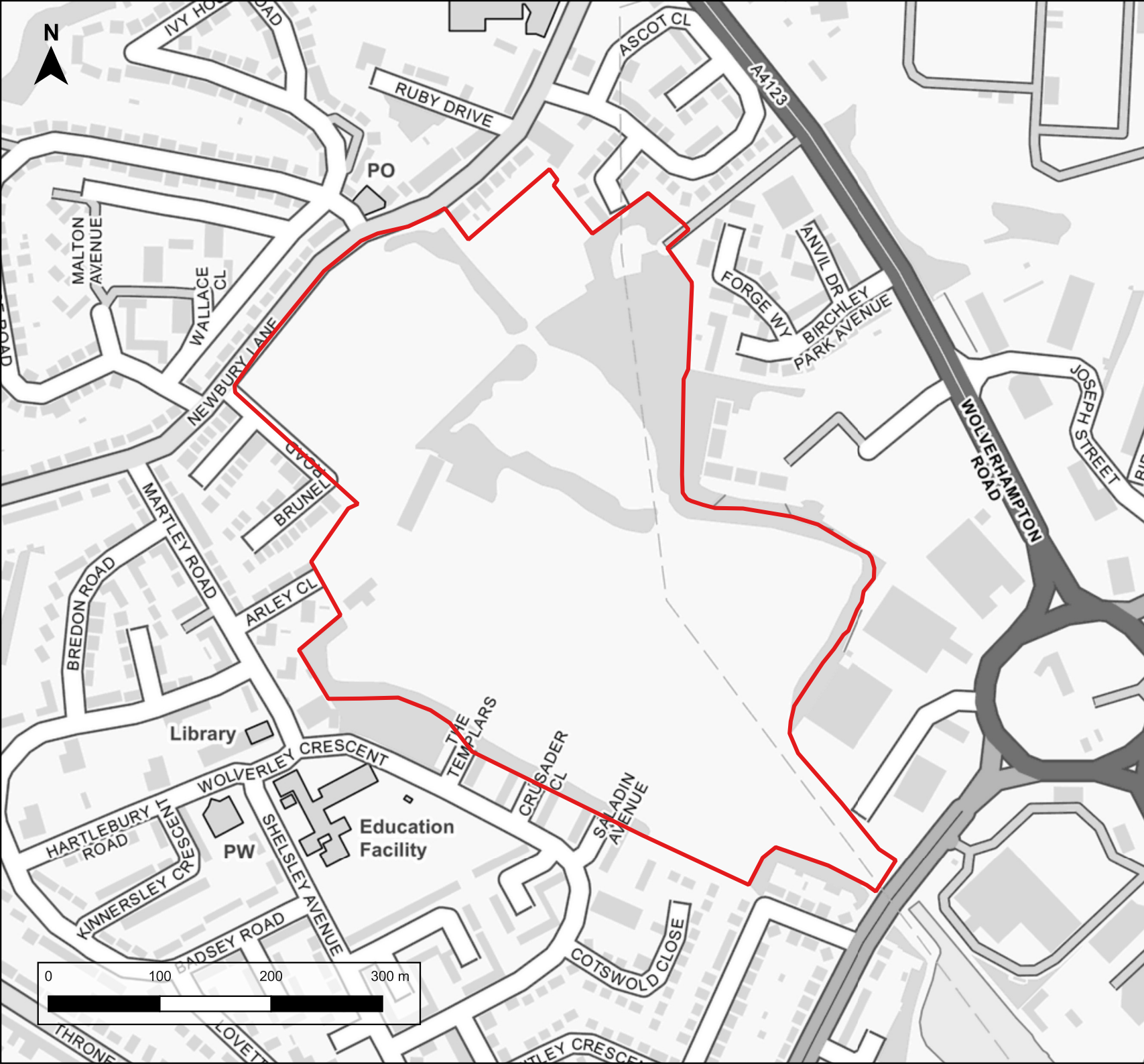
 Site Boundary

Bedrock Geology

-  Mafic igneous rock
-  Mudstone, siltstone and sandstone
-  Mudstone, siltstone, sandstone, coal, ironstone and ferricrete
-  Sandstone and conglomerate, interbedded
-  Siltstone and sandstone with subordinate mudstone



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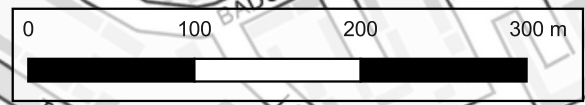
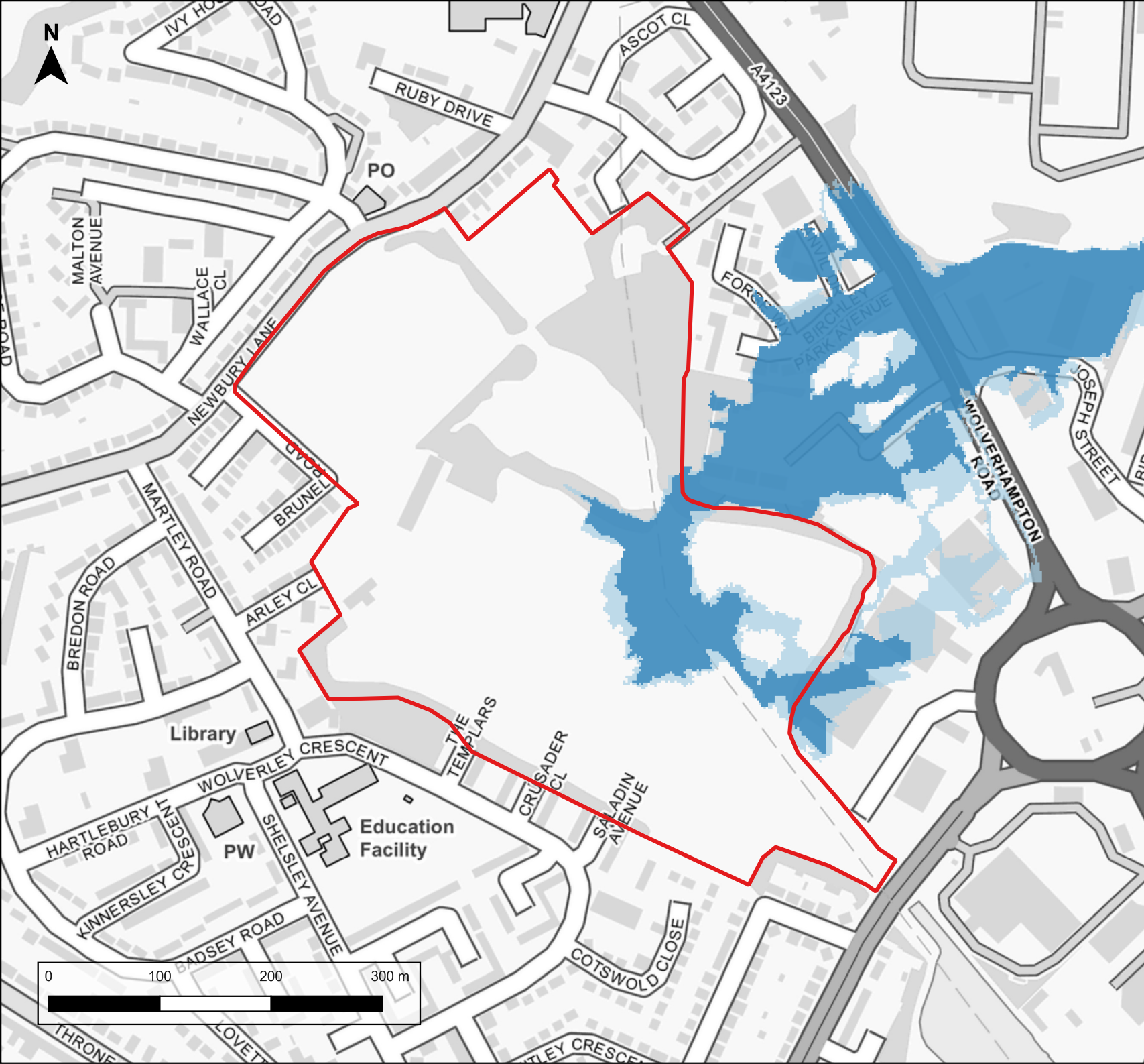


Flood Alert and Warning Areas

Legend

- Site Boundary
- Flood Warning Areas
- Flood Alert Areas

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Flood Map for Planning

Legend

- Site Boundary
- Flood Zone 3
- Flood Zone 2

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





Groundwater Emergence

Legend

 Site Boundary

Groundwater Emergence

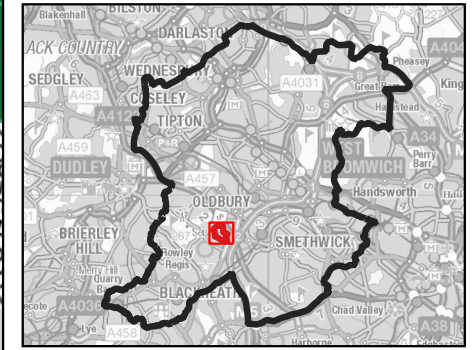
-  No Risk
-  Groundwater levels area at least 5m below the ground surface
-  Groundwater levels are between 0.5m and 5m below the ground surface
-  Groundwater levels are between 0.025m and 0.5m below the ground surface
-  Groundwater levels are either at or very near (within 0.025m of the ground surface)



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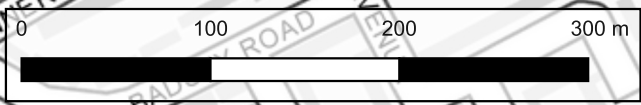
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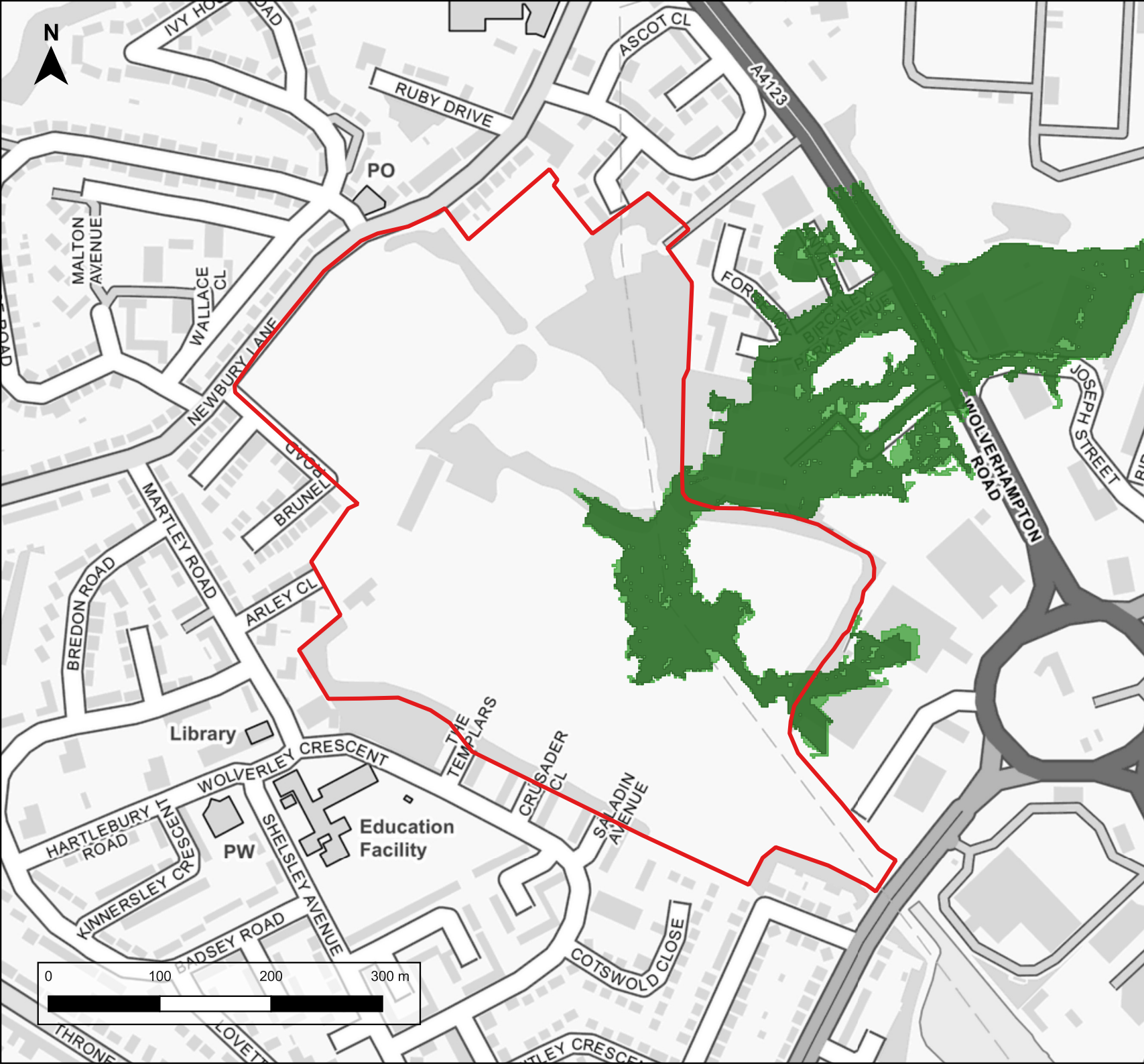
Modelled Fluvial plus Climate Change Flood Risk

Legend

-  Site boundary
-  Flood Zone 3b + Central CC
-  Flood Zone 3a + Central CC
-  Flood Zone 3a + Higher Central CC



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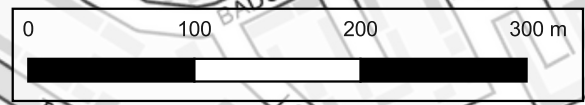
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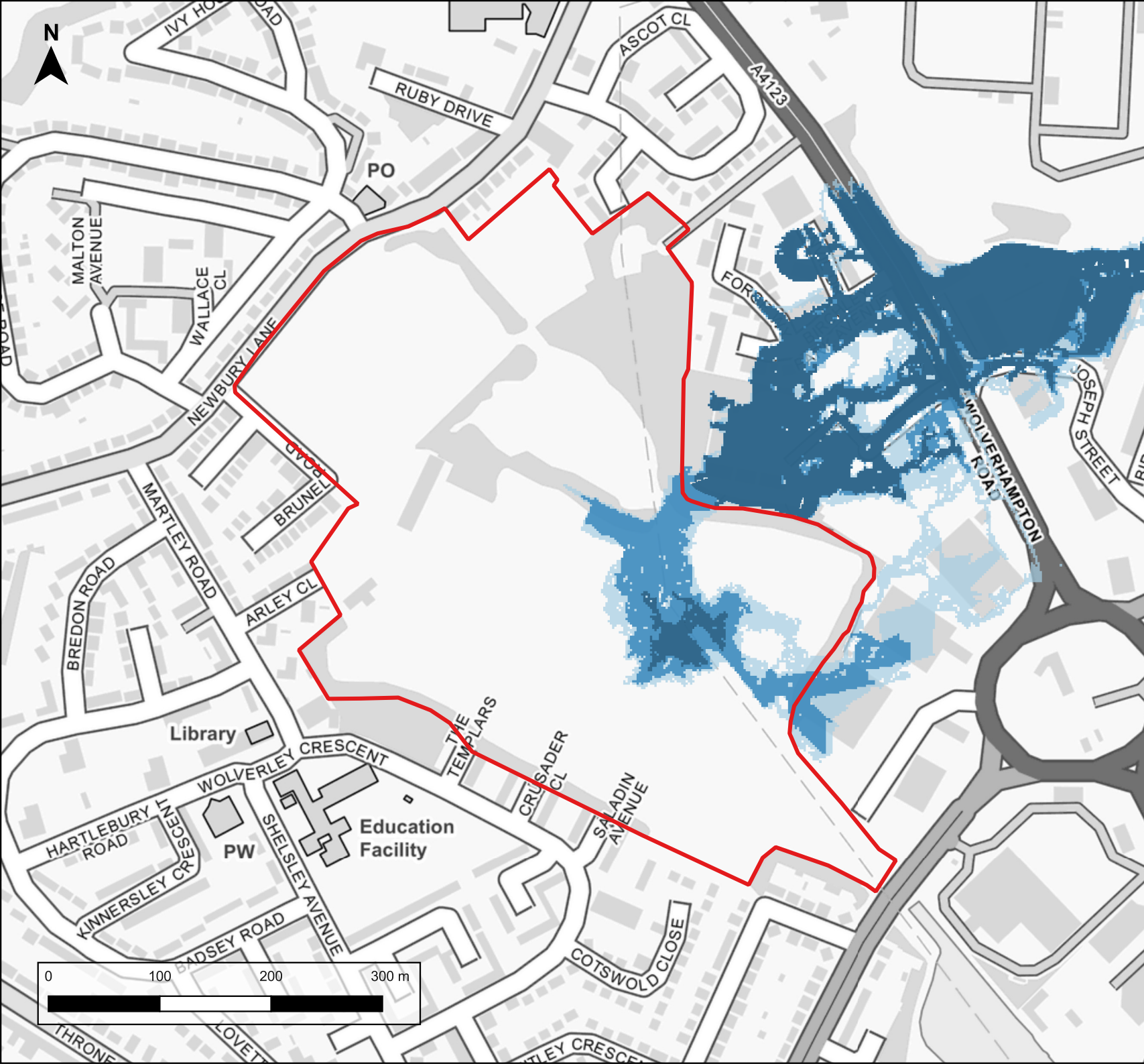
Modelled Fluvial plus Climate Change Flood Risk

Legend

- Site Boundary
- Flood Zone 3b + CC
- Flood Zone 3a + Central CC



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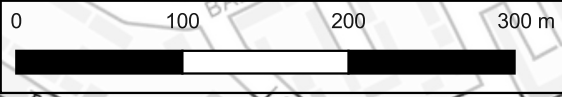
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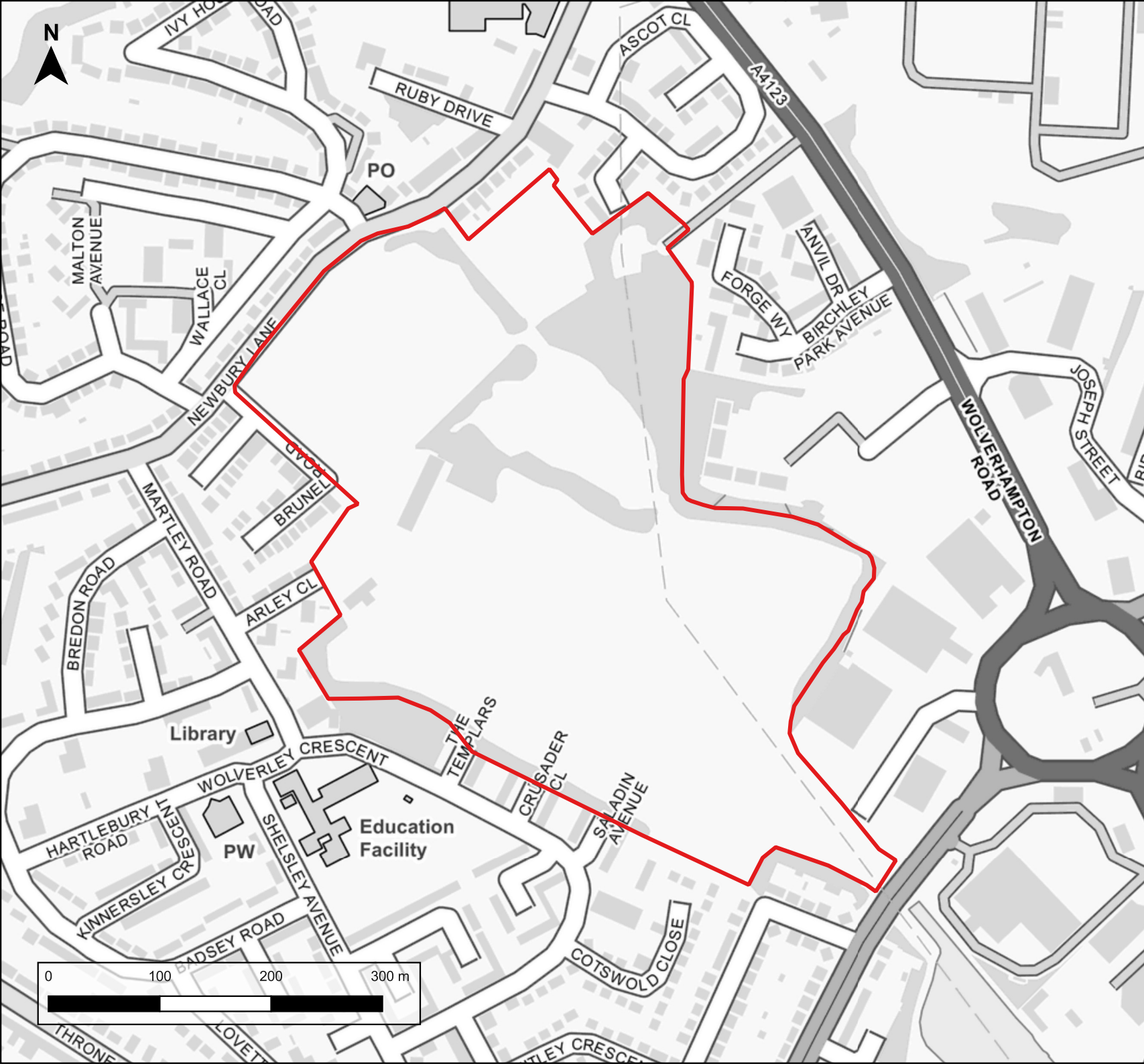
Modelled Fluvial Flood Risk

Legend

- Site Boundary
- Flood Zone 3b
- Flood Zone 3a
- Flood Zone 2



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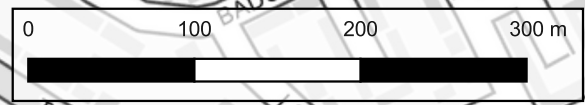
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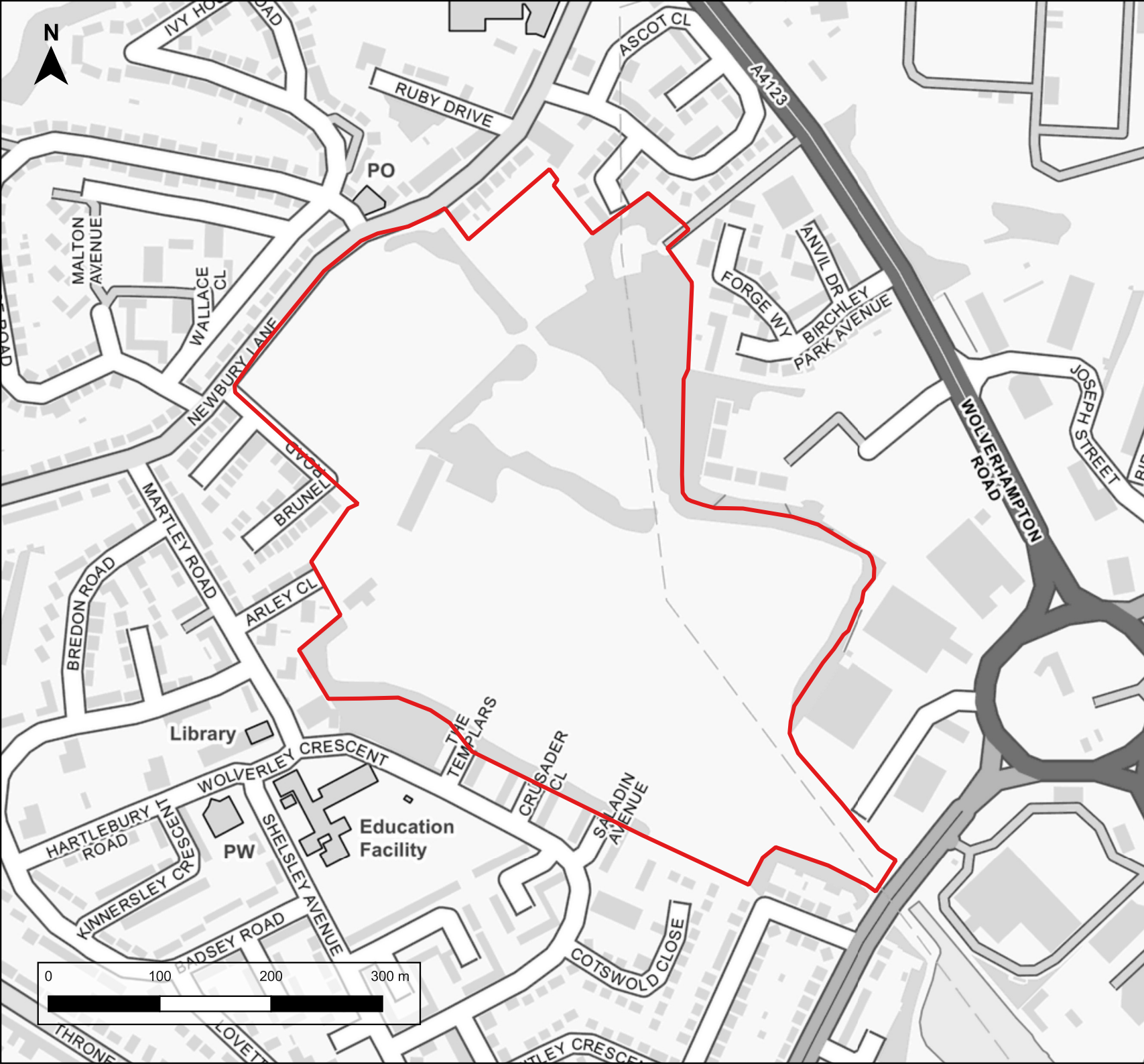
Reservoir Flood Extents

Legend

-  Site Boundary
-  Fluvial Contribution
-  Dry Day Extent
-  Wet Day Extent



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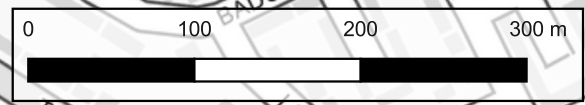
Superficial Deposits

Legend

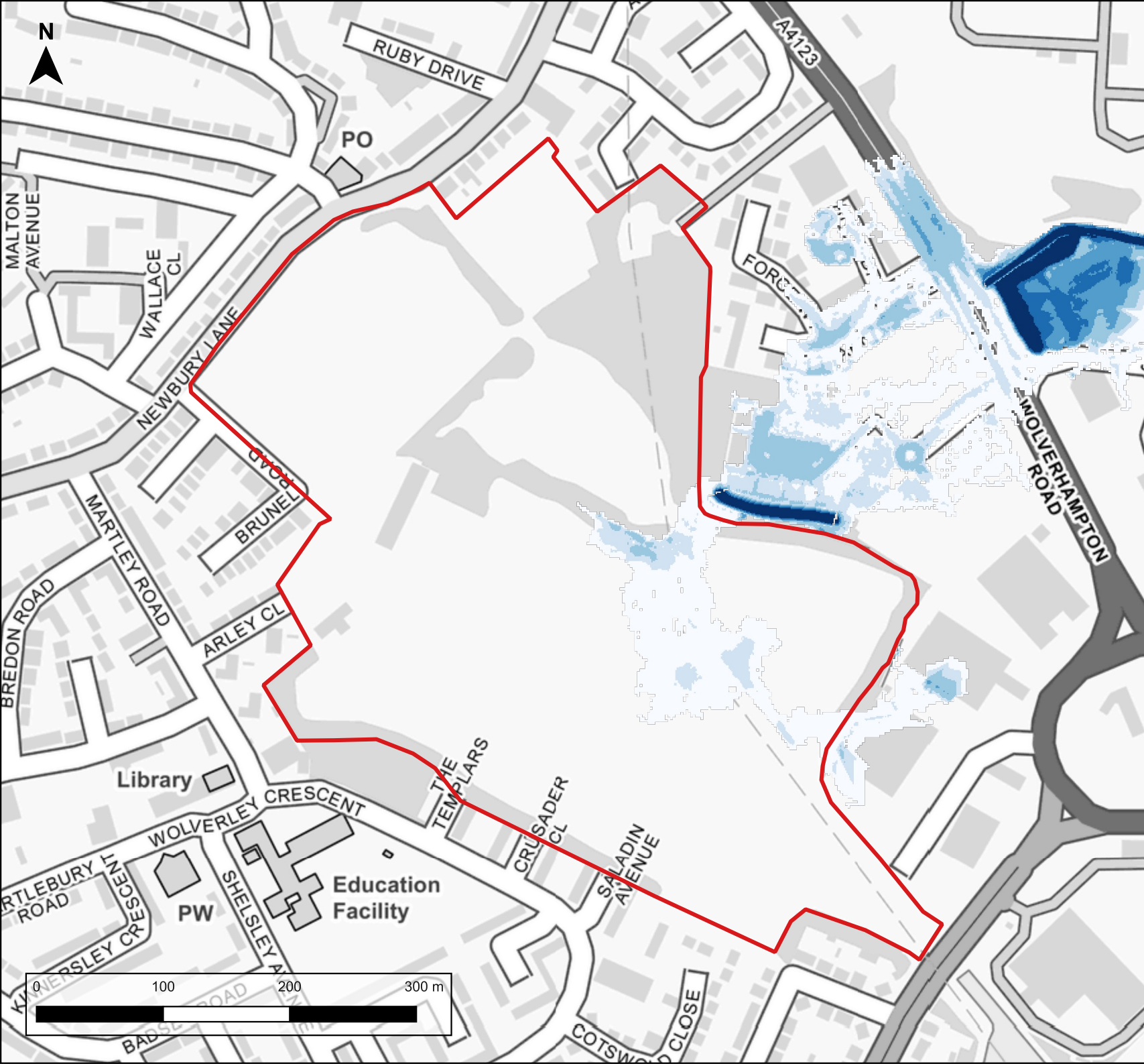
Site Boundary

Superficial Deposits

- Alluvium
- Glacial sand and gravel
- Till

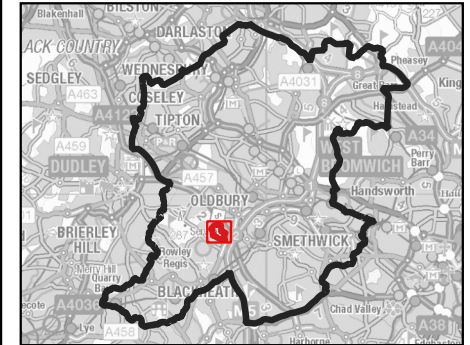


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Modelled Fluvial plus Climate Change Flood Risk: Depth

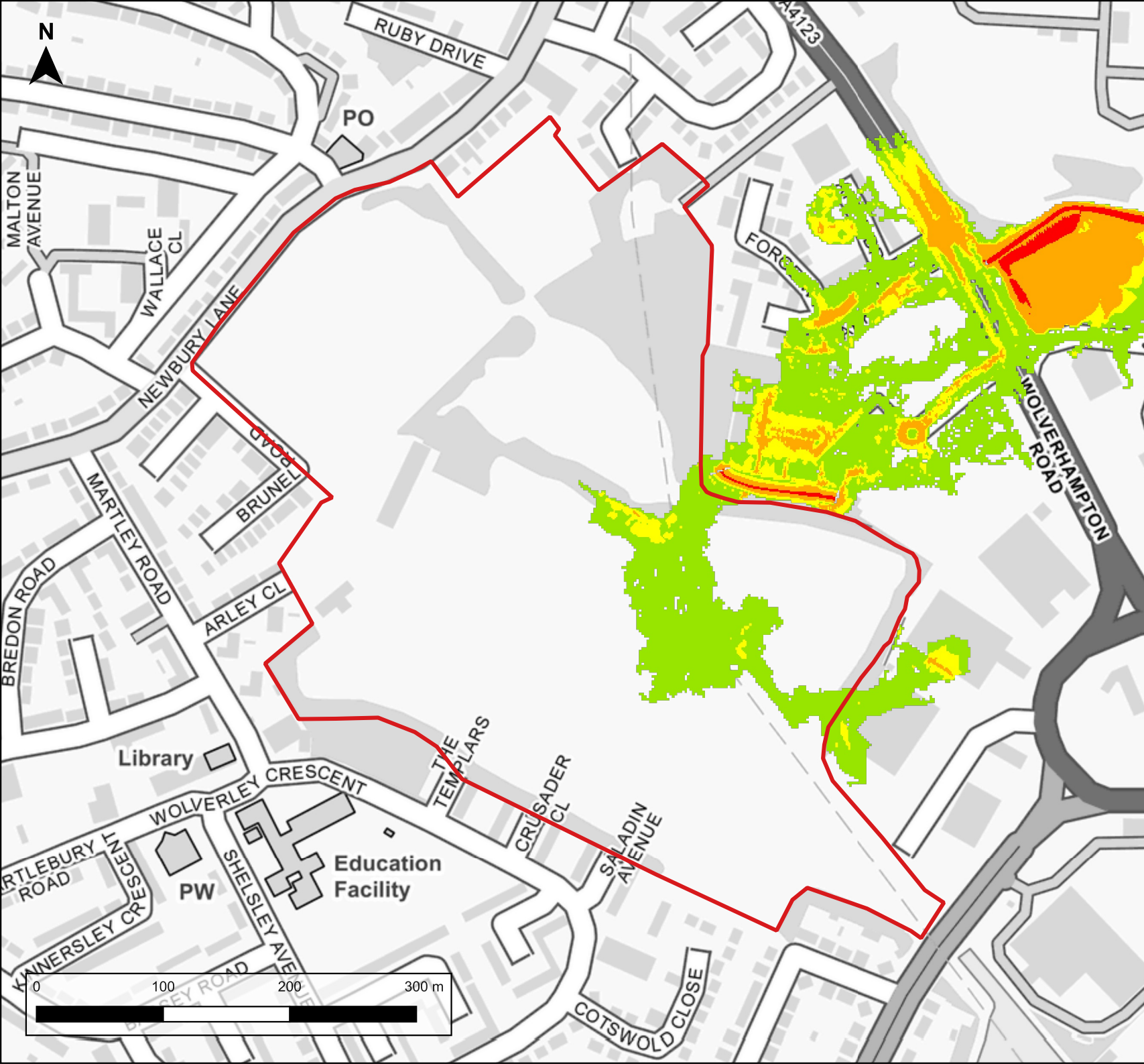
Legend

Site boundary

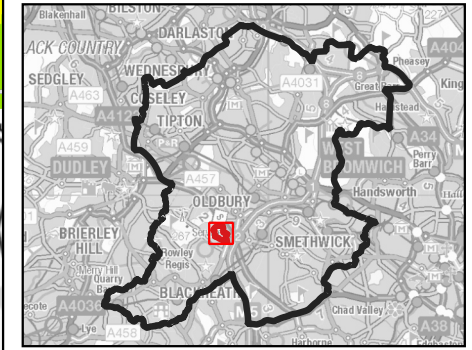
Whiteheat FZ3a + Central CC
 Depth (m)

- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20

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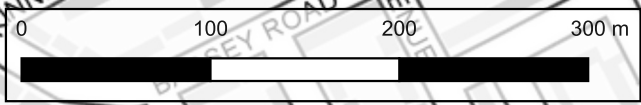
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Modelled Fluvial plus Climate Change Flood Risk: Hazard

Legend

- Site boundary
- Whiteheath FZ3a + Central CC Hazard
- Low - Caution
- Danger for some
- Danger for most
- Danger for all



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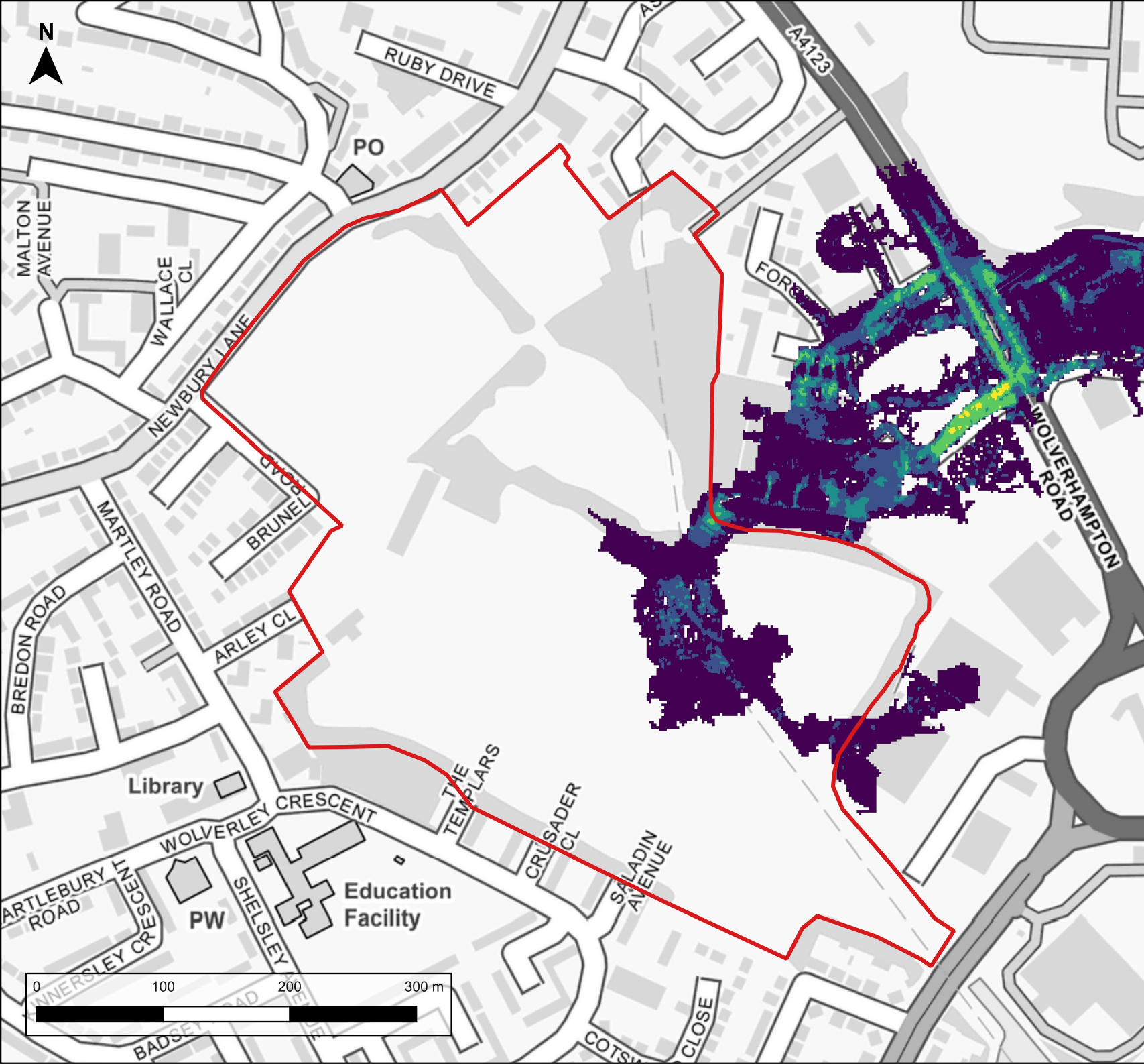
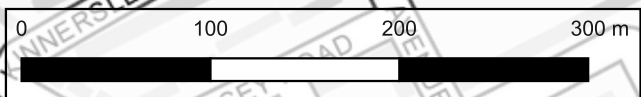


Modelled Fluvial plus Climate Change Flood Risk: Velocity

Legend

-  Site boundary
- Whiteheath FZ3a + Central CC Velocity (m/s)
- Band 1
-  < 0.25
-  0.25 - 0.50
-  0.50 - 1.00
-  1.00 - 2.00
-  > 2.00

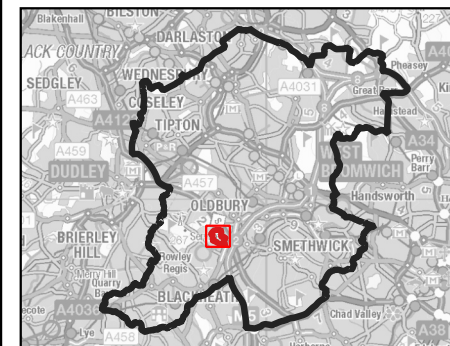
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Modelled Fluvial plus Climate Change Flood Risk: Depth

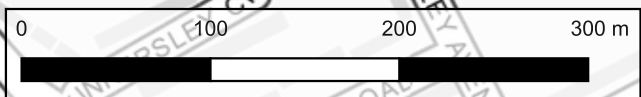
Legend

 Site boundary

Whiteheath FZ3a + Higher Central CC Depth (m)

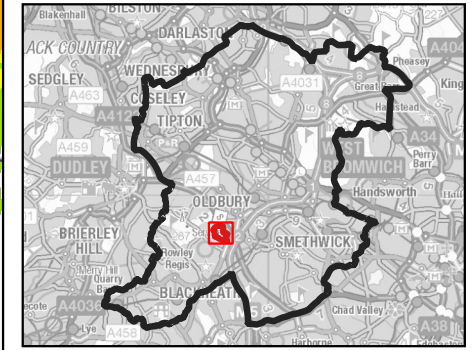
-  < 0.15
-  0.15 - 0.30
-  0.30 - 0.60
-  0.60 - 0.90
-  0.90 - 1.20
-  > 1.20

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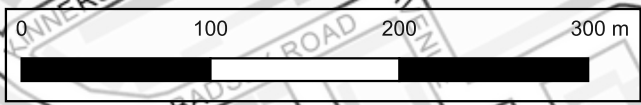
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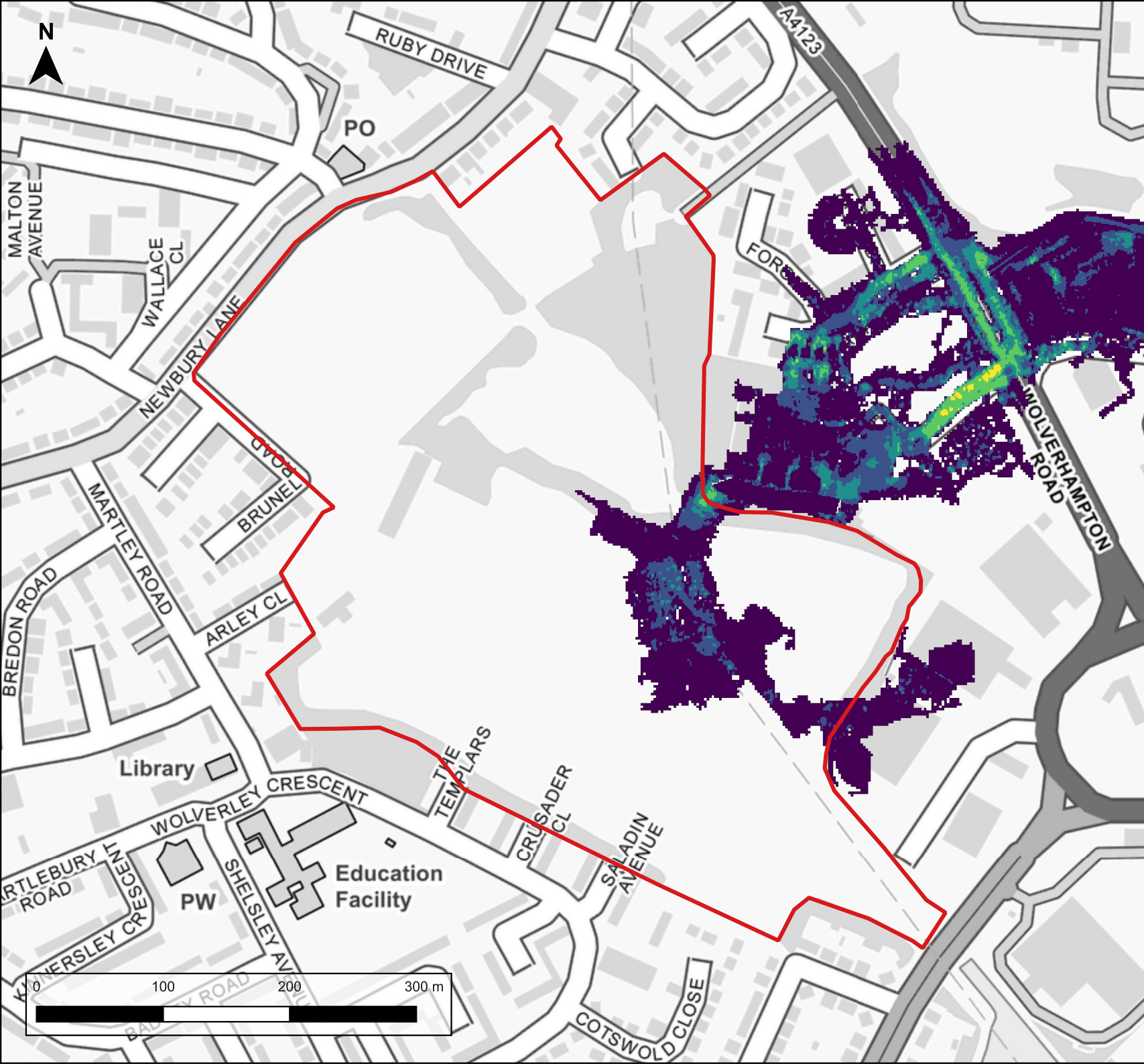
Modelled Fluvial plus Climate Change Flood Risk: Hazard

Legend

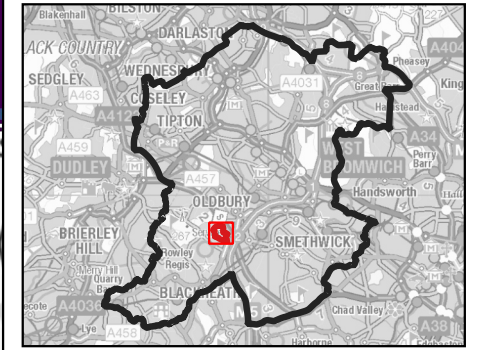
-  Site boundary
- Whiteheath FZ3a + Higher Central CC Hazard
-  Low - Caution
-  Danger for some
-  Danger for most
-  Danger for all



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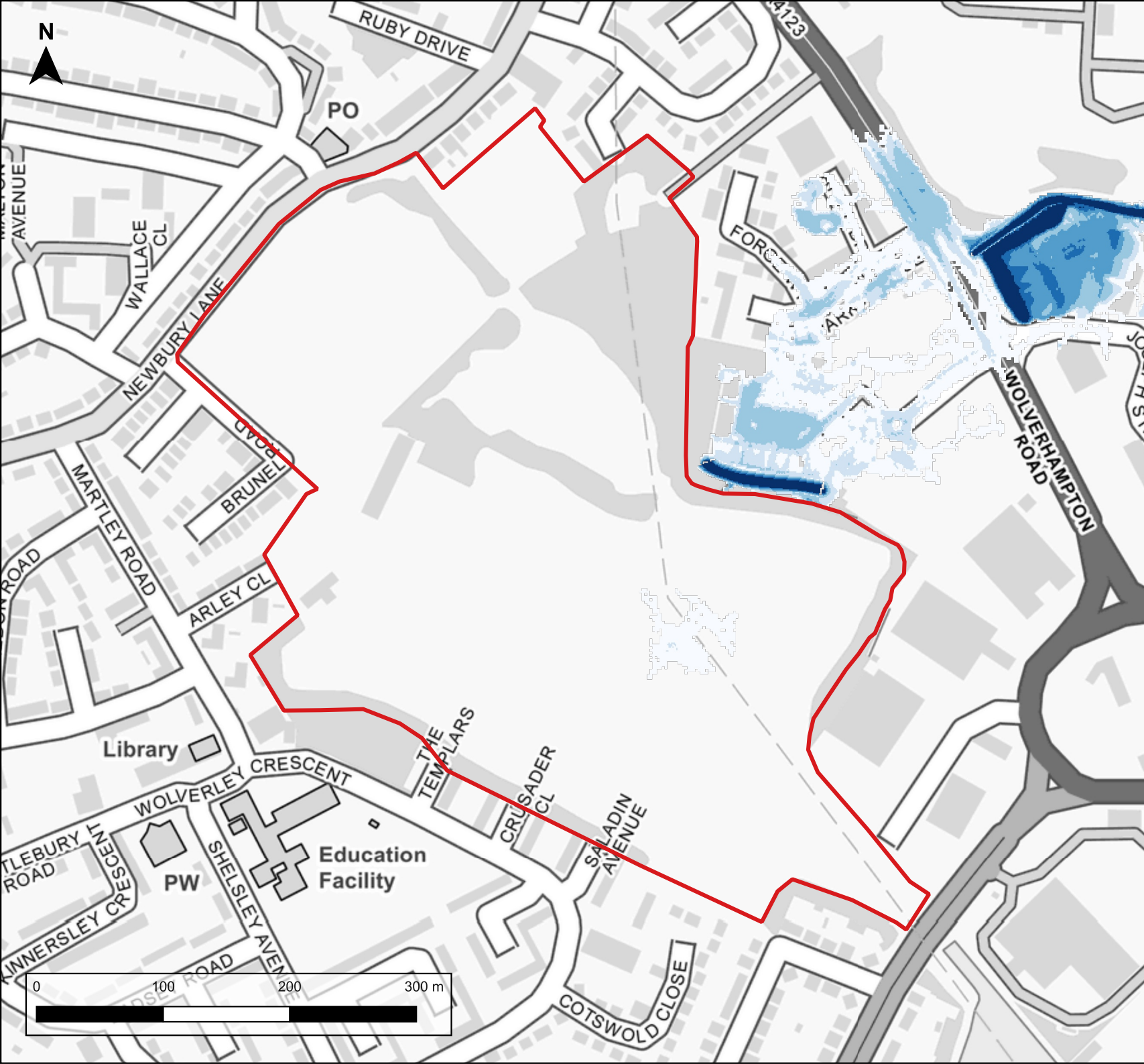


Modelled Fluvial plus Climate Change Flood Risk: Velocity

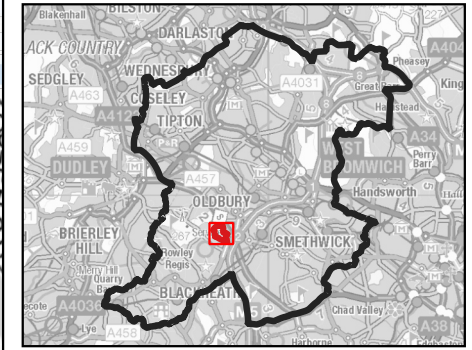
Legend

- Site boundary
- Whiteheath FZ3a + Higher Central CC Velocity (m/s)
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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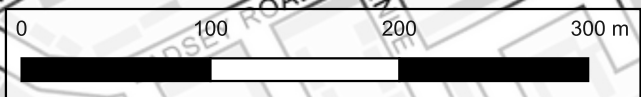
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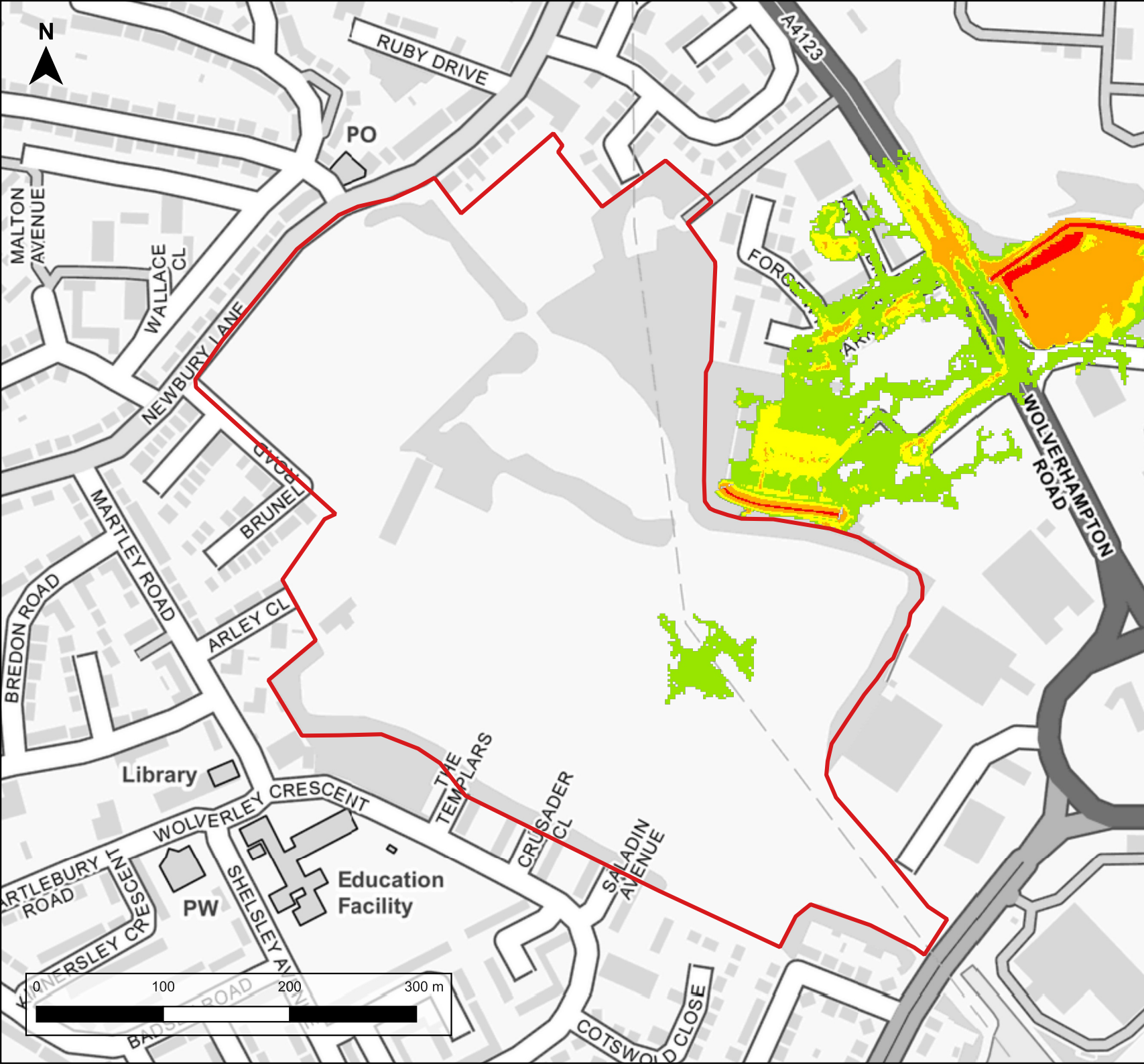
Modelled Fluvial Present Day
 Flood Risk: Depth

Legend

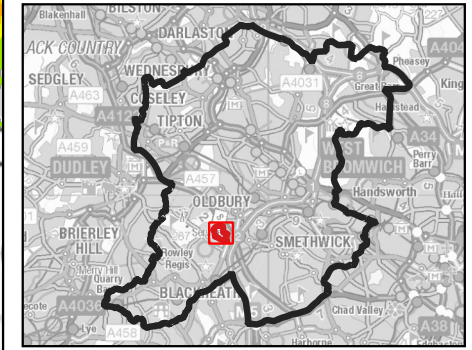
- Site boundary
- Whiteheath 30yr Depth (m)**
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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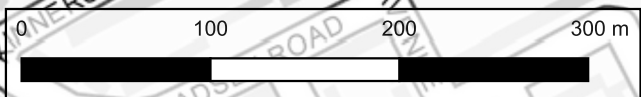
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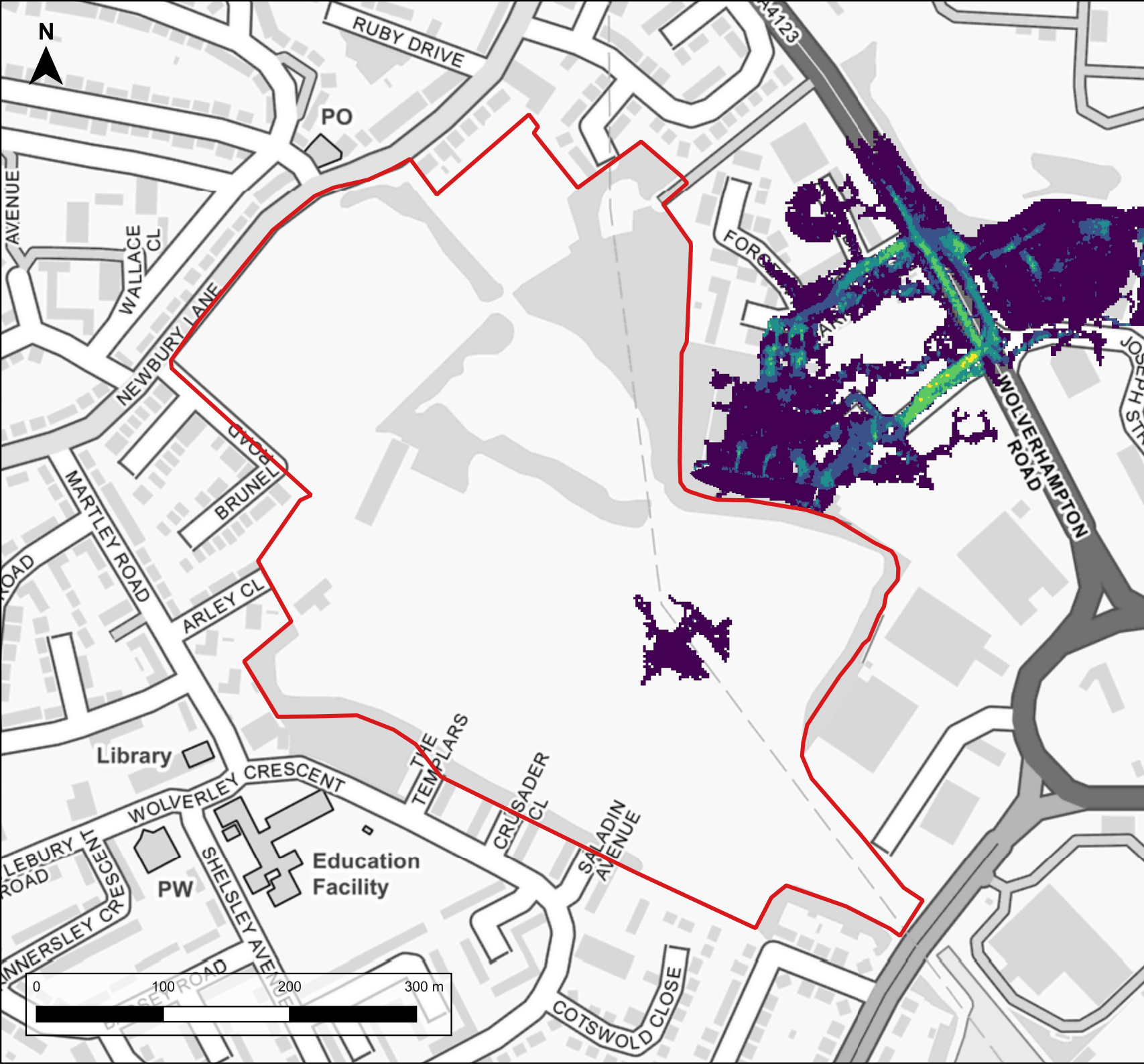
Modelled Fluvial Present Day
 Flood Risk: Hazard

Legend

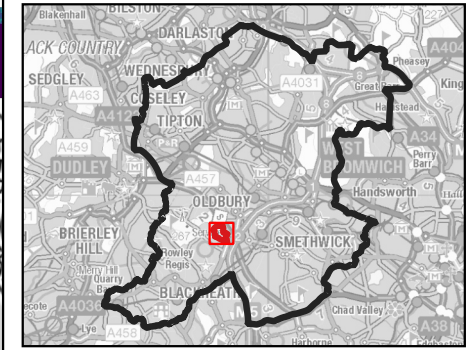
- Site boundary
- Whiteheath 30yr Hazard**
- Low - Caution
- Danger for some
- Danger for most
- Danger for all



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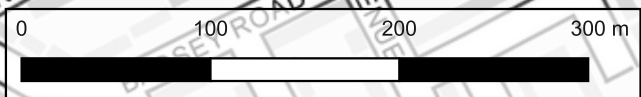
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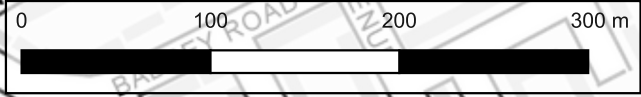
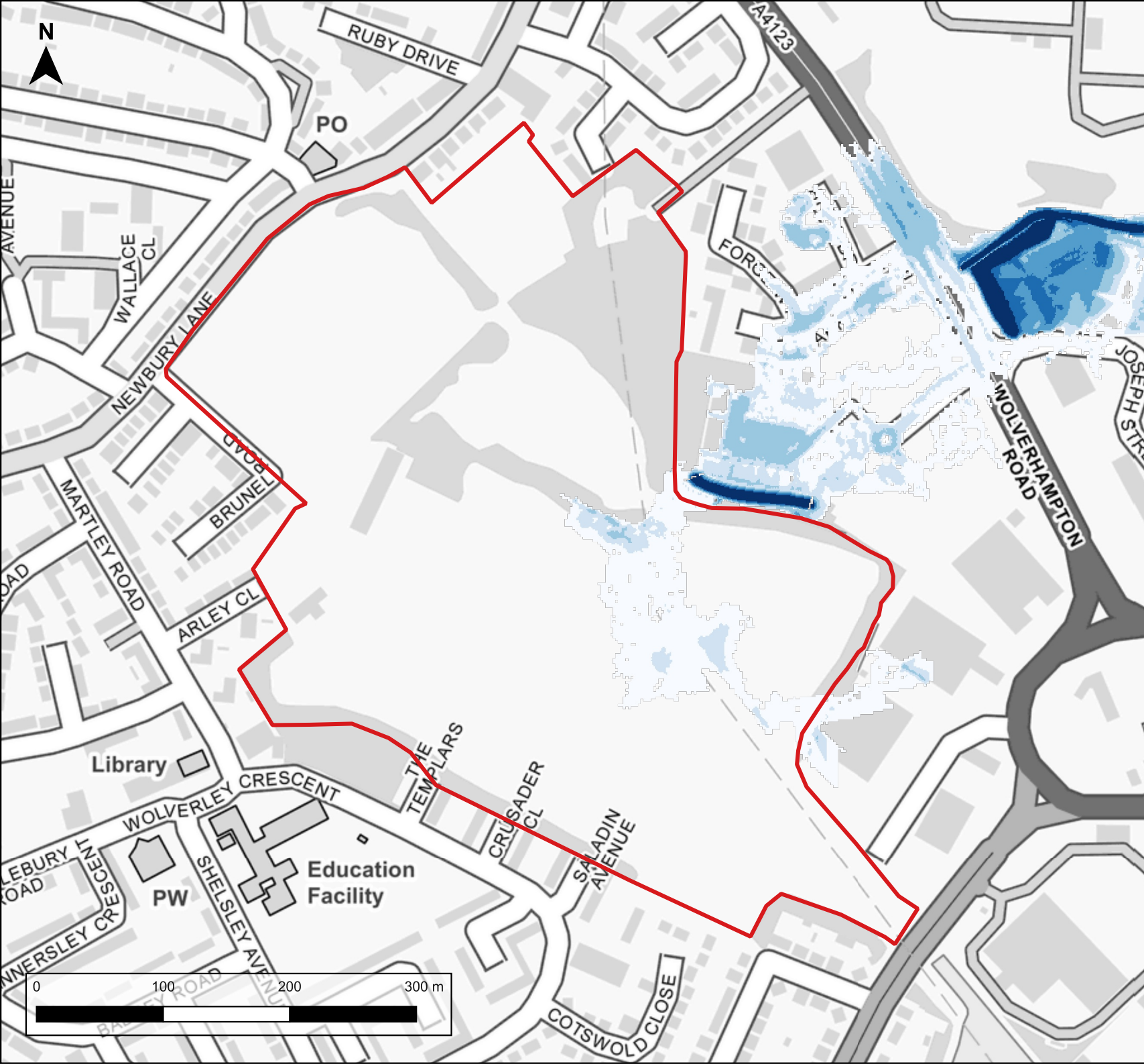
Modelled Fluvial Present Day
 Flood Risk: Velocity

Legend

- Site boundary
- Whiteheath 30yr Velocity (m/s)**
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00



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Modelled Fluvial Present Day
 Flood Risk: Depth

Legend

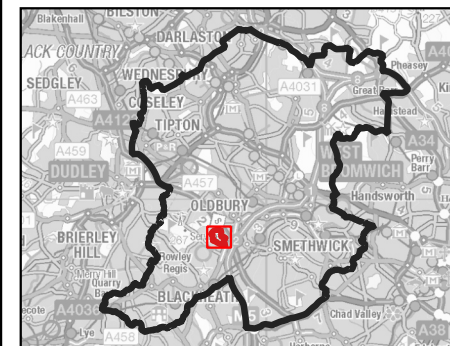
- Site boundary
- Whiteheath 30yr Depth (m)**
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20

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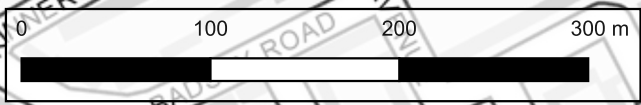
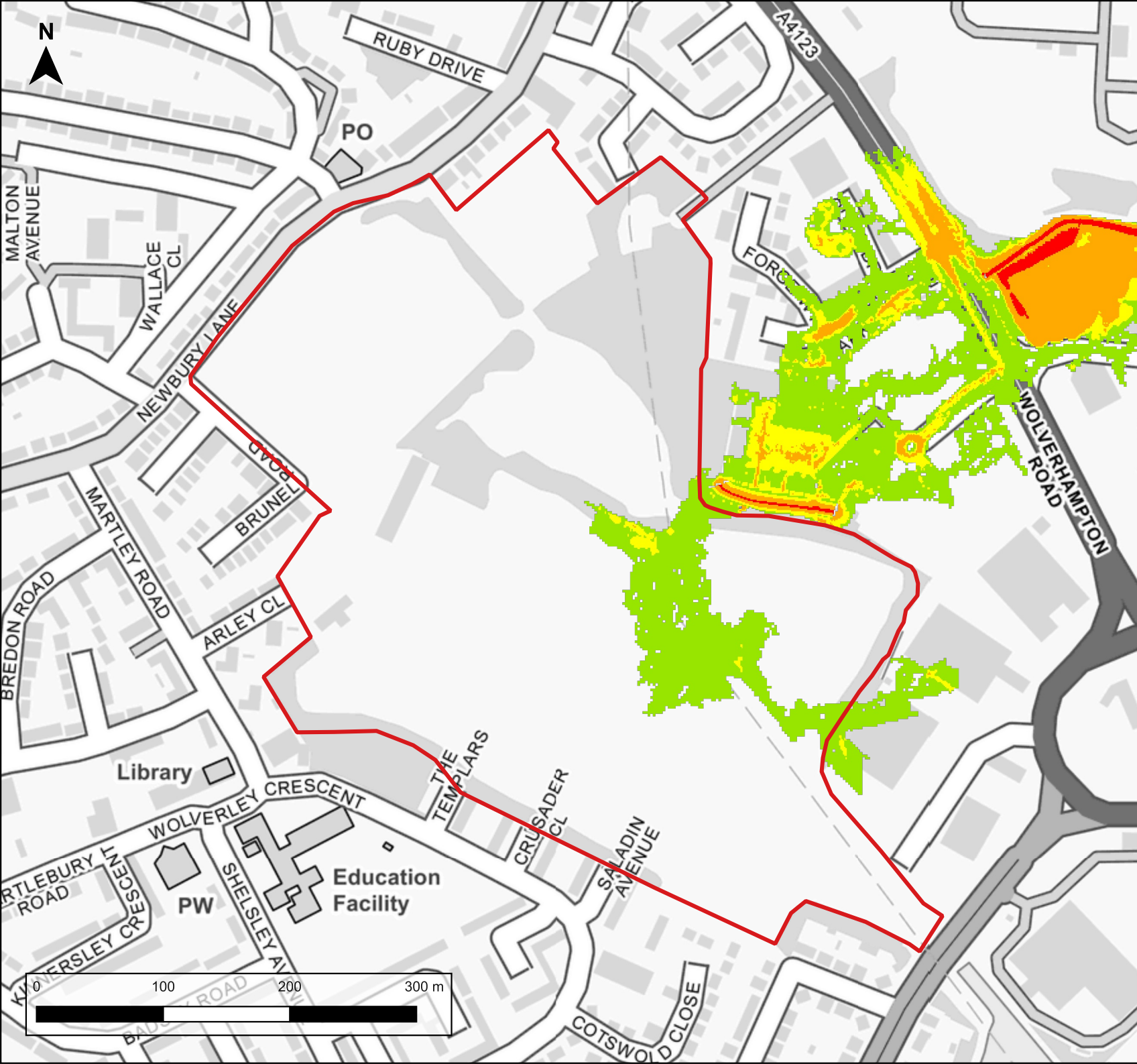


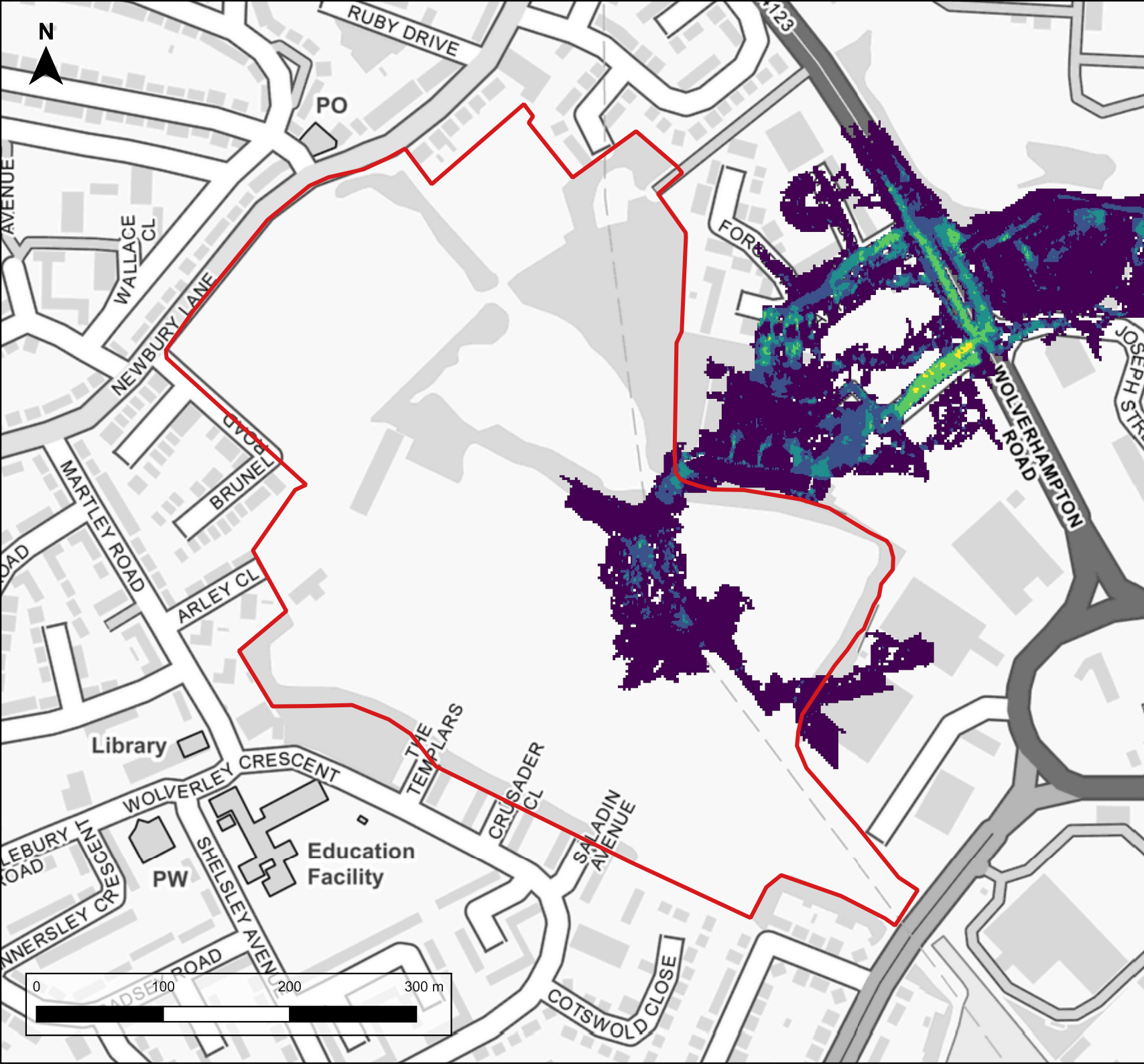
Modelled Fluvial Present Day
 Flood Risk: Hazard

Legend

-  Site boundary
- Whiteheath 100yr Hazard**
-  Low - Caution
-  Danger for some
-  Danger for most
-  Danger for all

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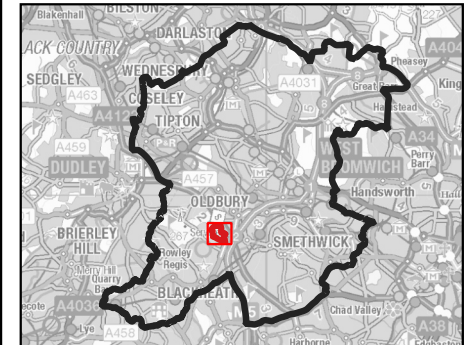




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Modelled Fluvial Present Day
 Flood Risk: Velocity

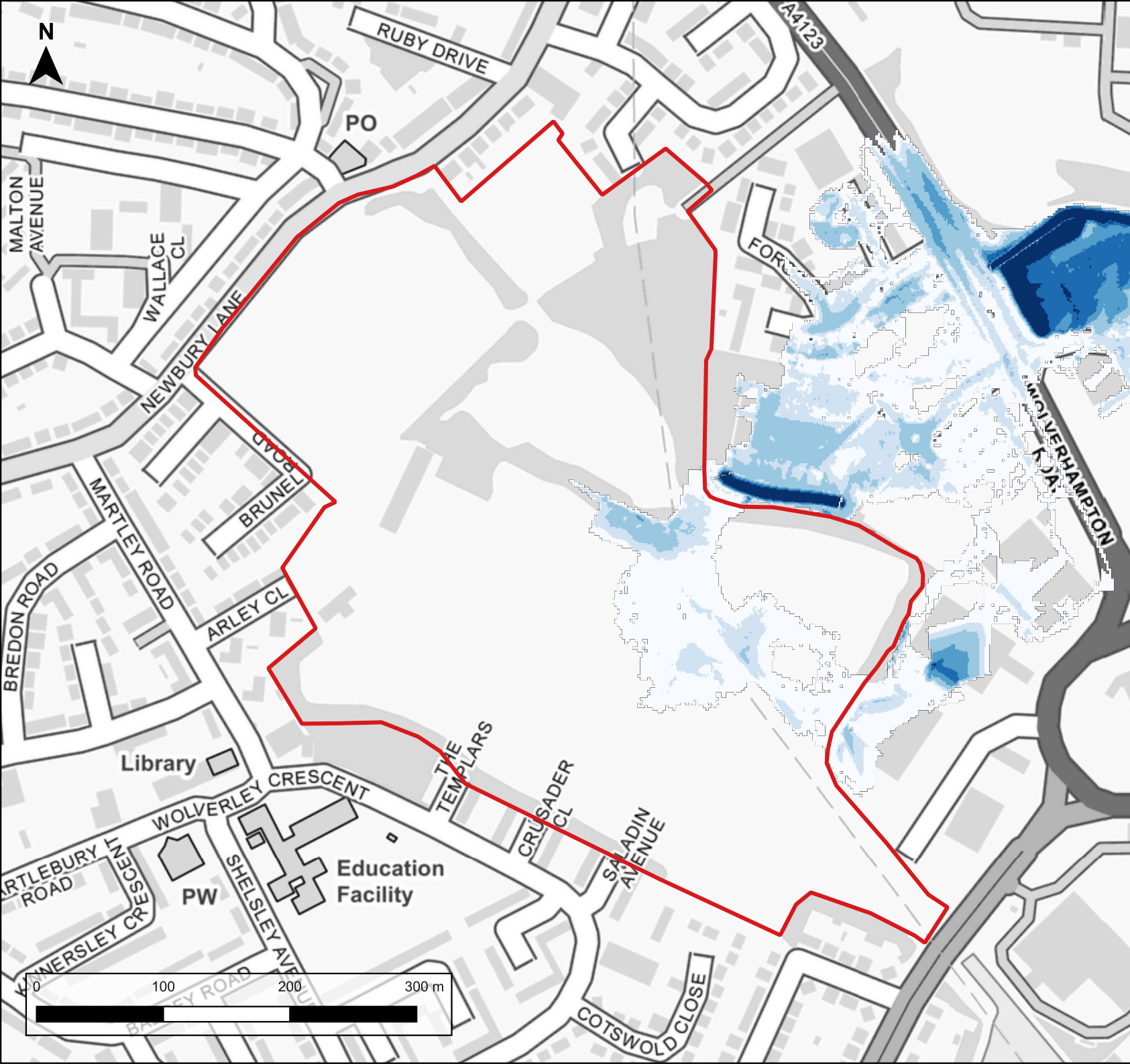
Legend

 Site boundary

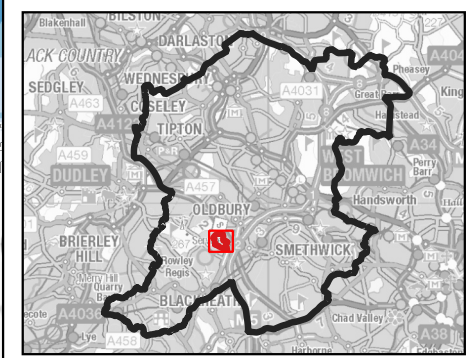
Whiteheath 100yr Velocity (m/s)

-  < 0.25
-  0.25 - 0.50
-  0.50 - 1.00
-  1.00 - 2.00
-  > 2.00

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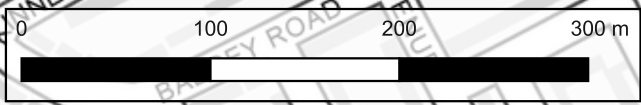
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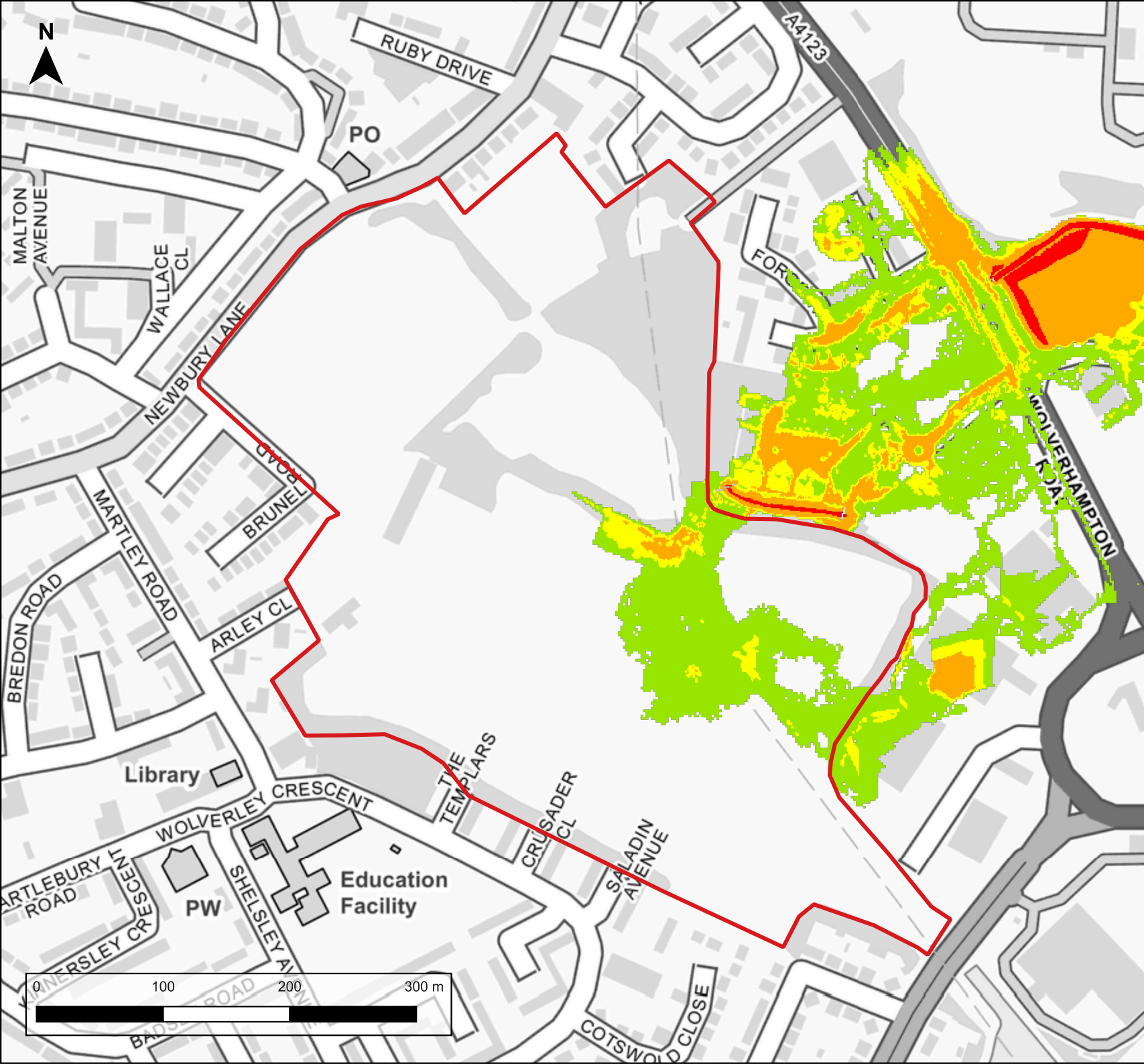
Modelled Fluvial Present Day
 Flood Risk: Depth

Legend

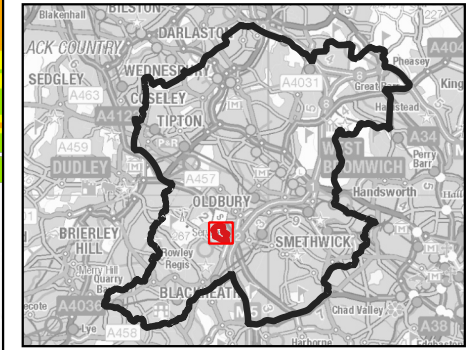
- Site boundary
- Whiteheath 1000yr Depth (m)**
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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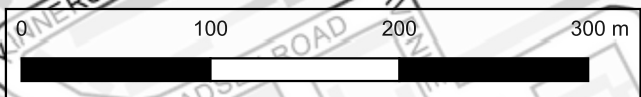
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Modelled Fluvial Present Day
 Flood Risk: Hazard

Legend

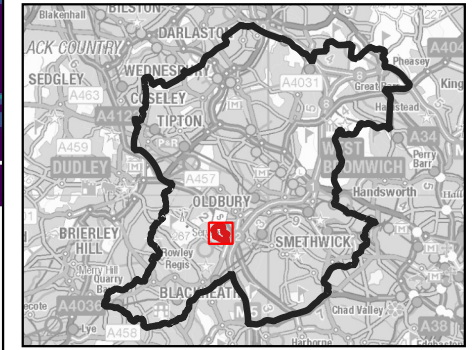
- Site boundary
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- Danger for most
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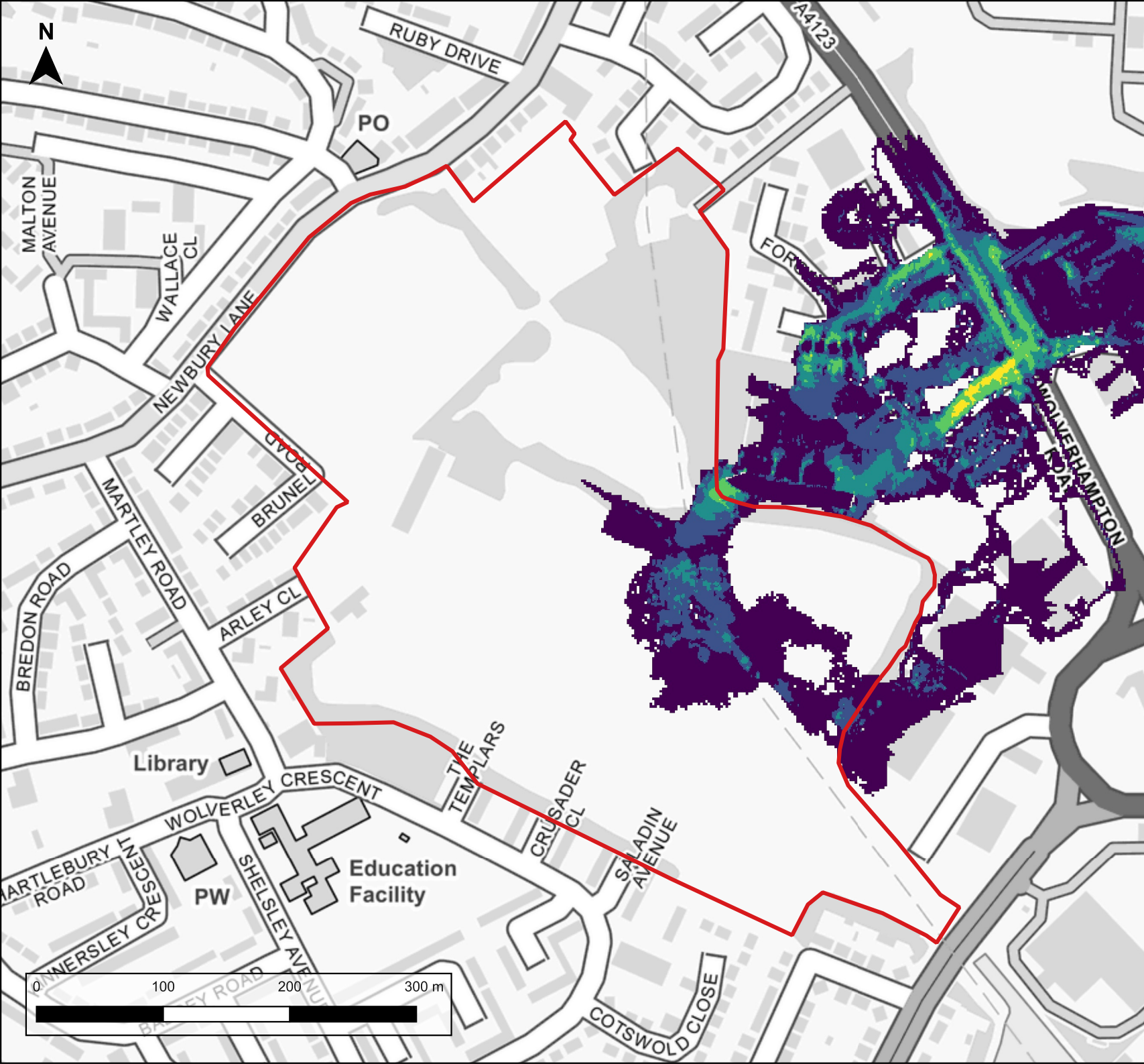
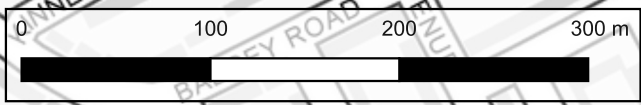


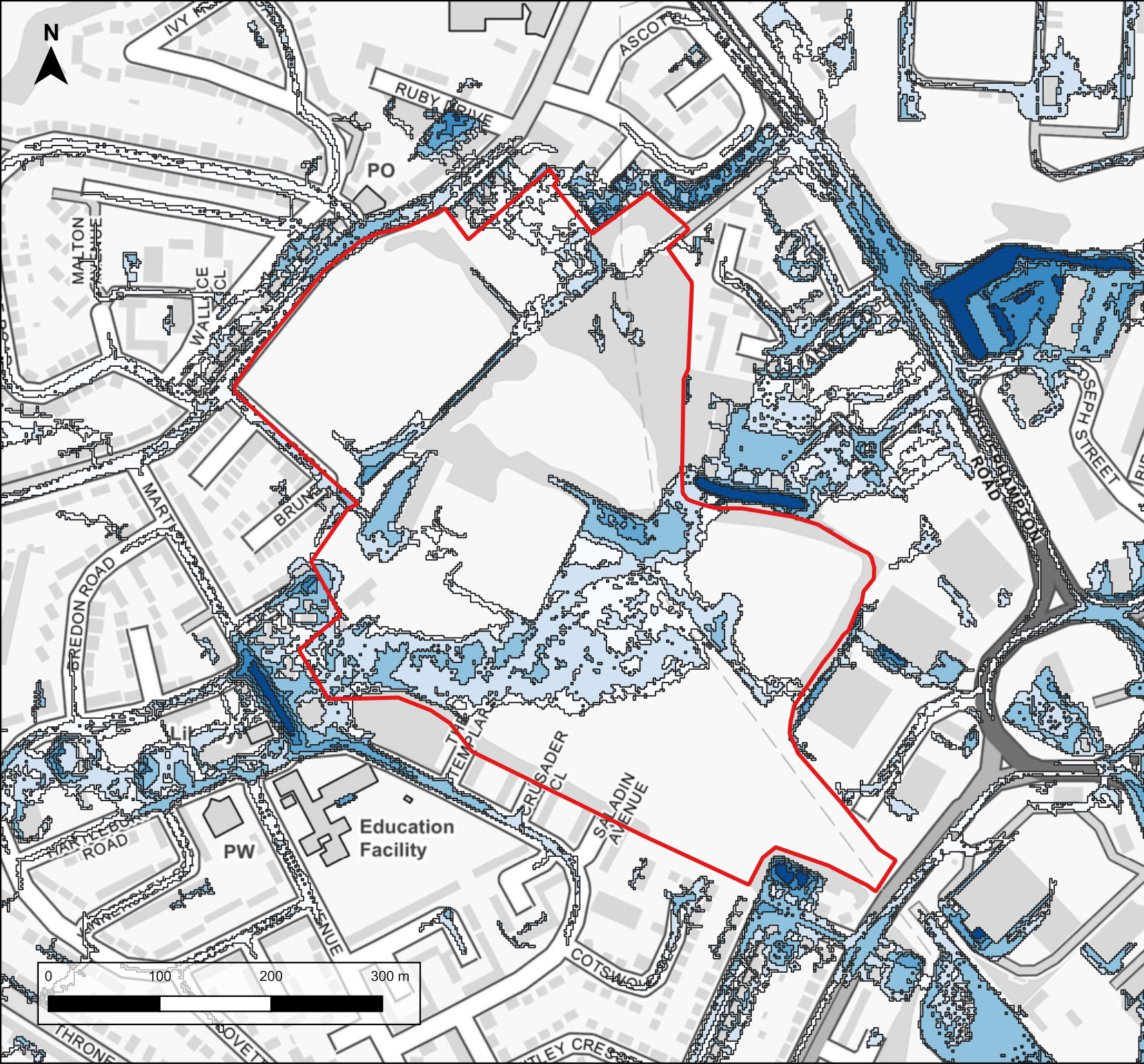
Modelled Fluvial Present Day
 Flood Risk: Velocity

Legend

-  Site boundary
- Whiteheath 1000yr
Velocity (m/s)
-  < 0.25
-  0.25 - 0.50
-  0.50 - 1.00
-  1.00 - 2.00
-  > 2.00

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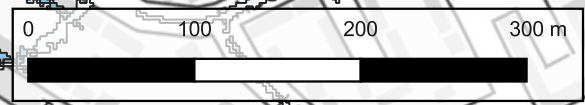
35 Perrymount Road
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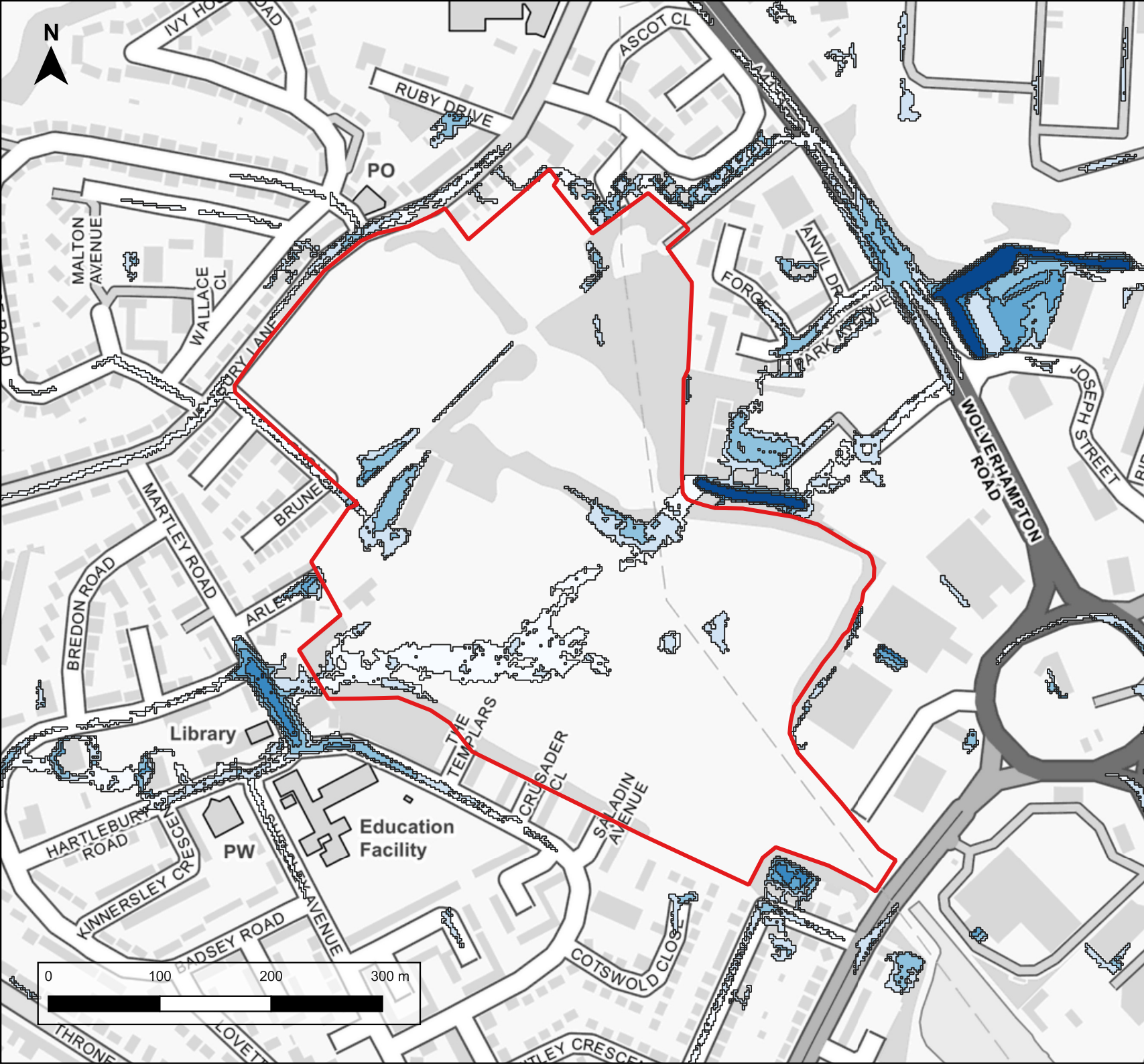
Risk of Flooding from
 Surface Water 0.1% AEP
 Depth

Legend

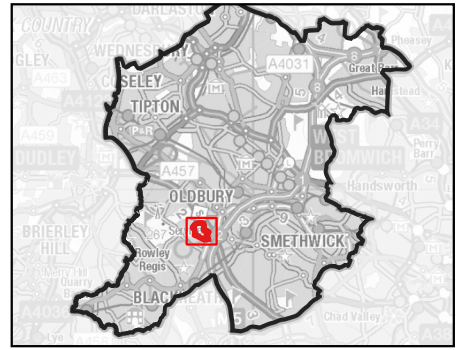
- Site Boundary
- 0.1% AEP Depth (m)**
- 0.00 - 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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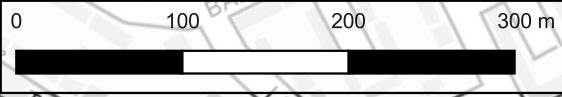
Risk of Flooding from
 Surface Water 1% AEP
 Depth

Legend

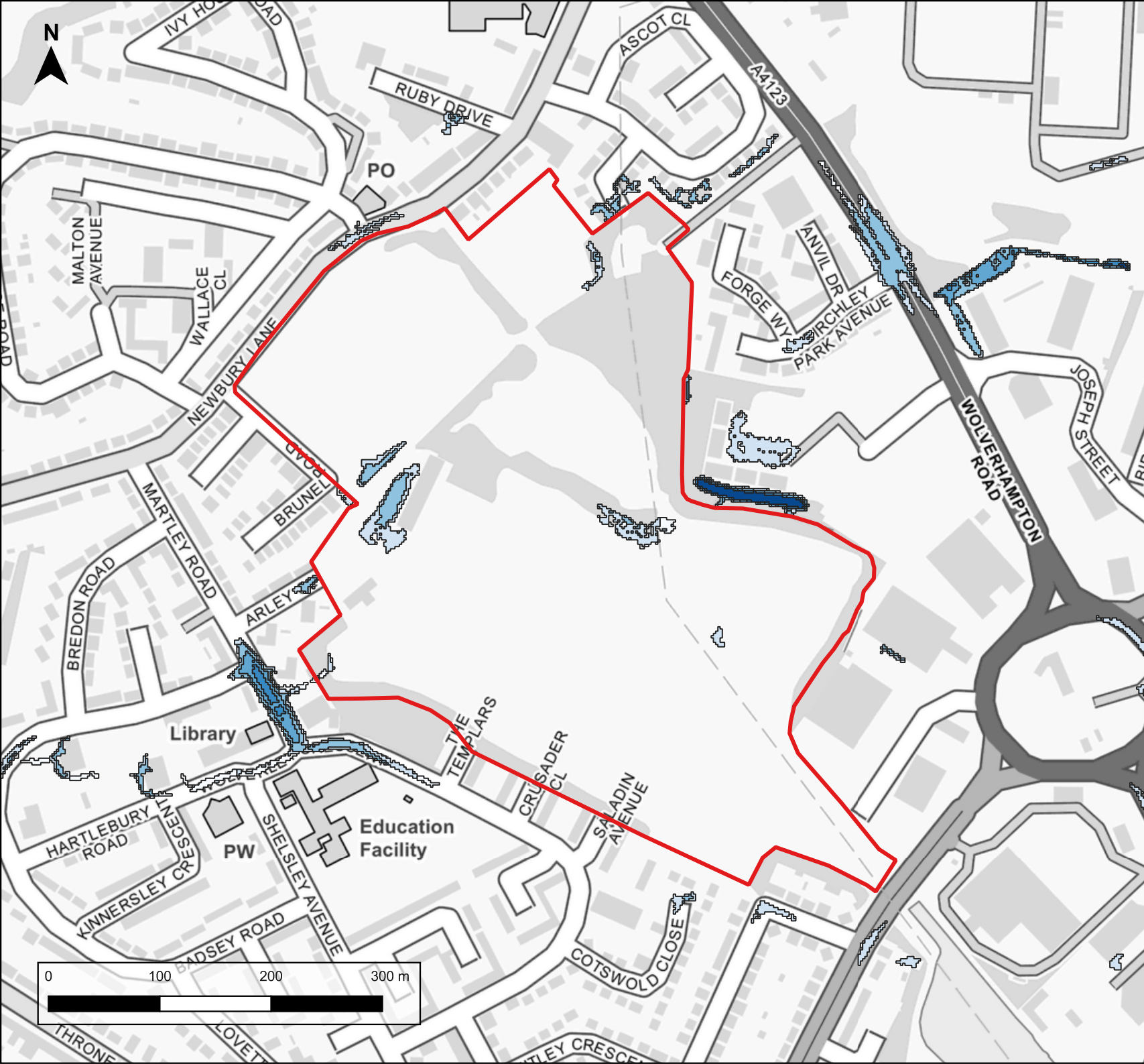
Site Boundary

1% AEP Depth (m)

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



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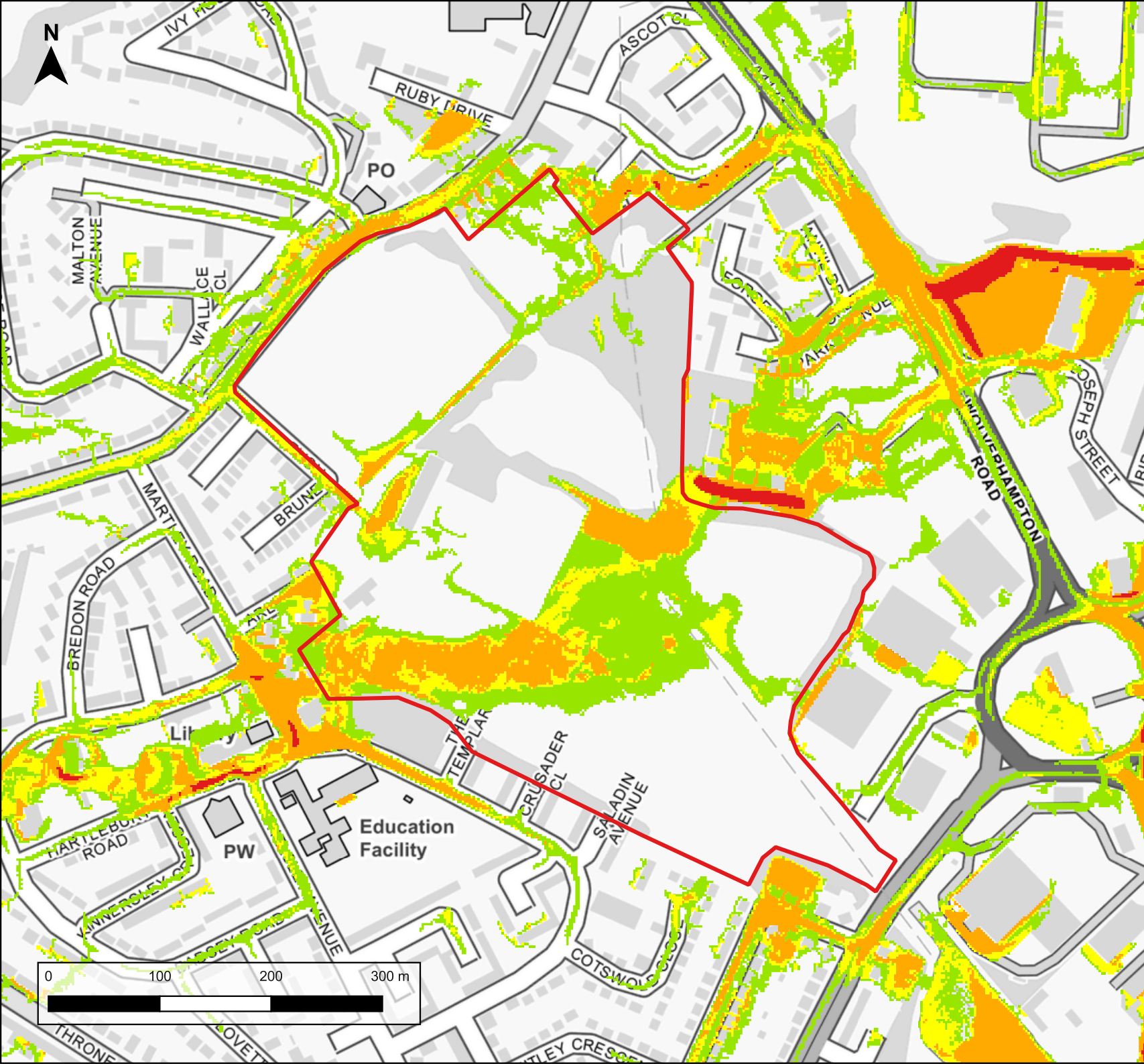


Risk of Flooding from
 Surface Water 3.3% AEP
 Depth

Legend

- Site Boundary
- 3.3% AEP Depth (m)**
- 0.00 - 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20

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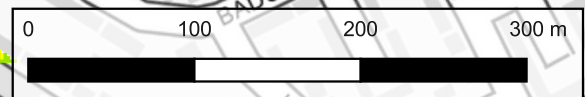
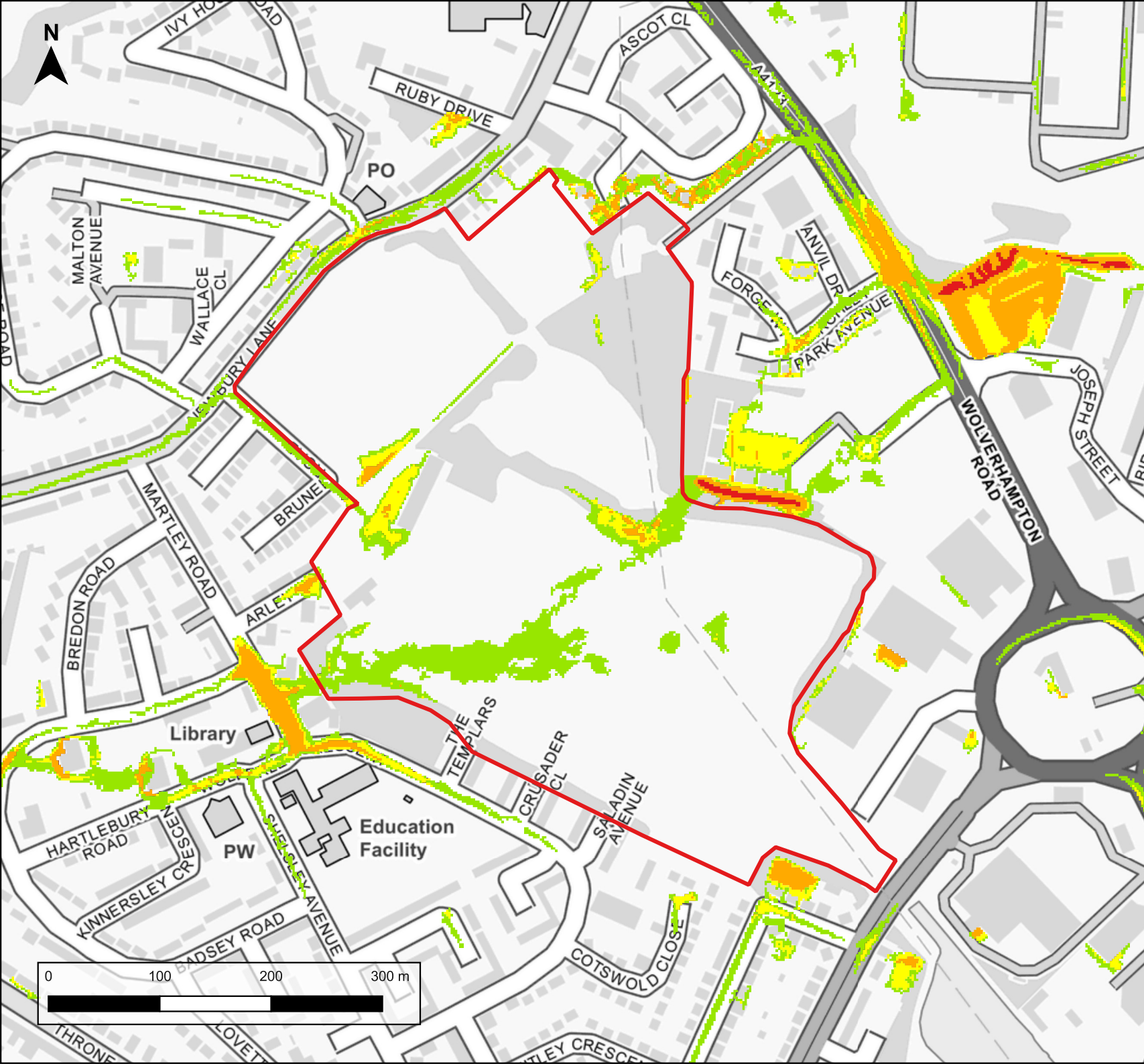
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Risk of Flooding from
 Surface Water 0.1% AEP
 Hazard

- Legend**
- Site Boundary
 - 0.1% AEP Hazard**
 - Low - Caution
 - Danger for some
 - Danger for most
 - Danger for all

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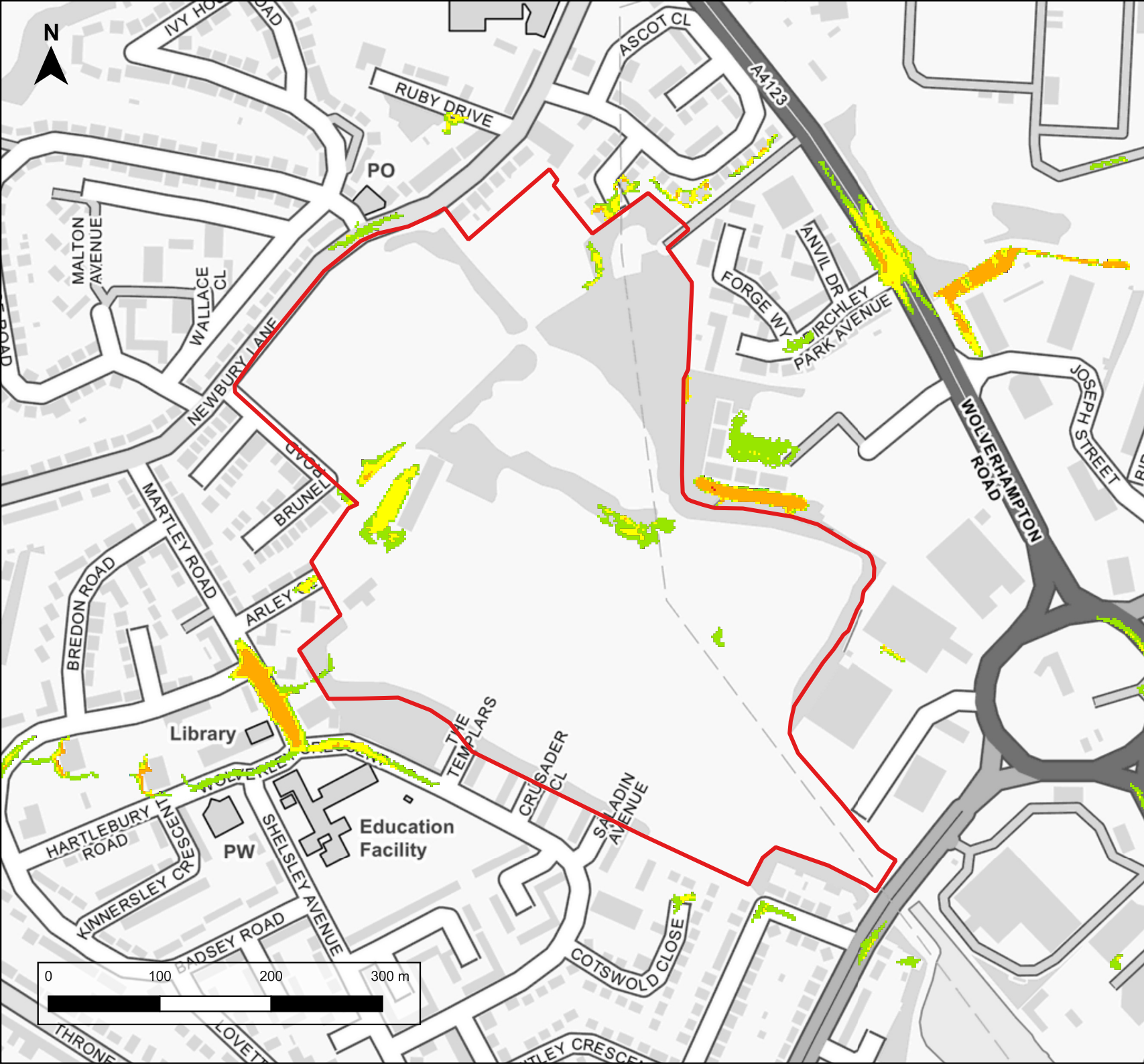
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Risk of Flooding from
 Surface Water 1% AEP
 Hazard

- Legend**
- Site Boundary
 - 1% AEP Hazard**
 - Low - Caution
 - Danger for some
 - Danger for most
 - Danger for all

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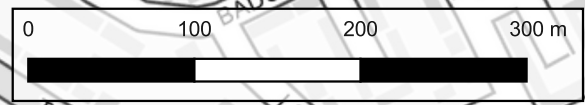
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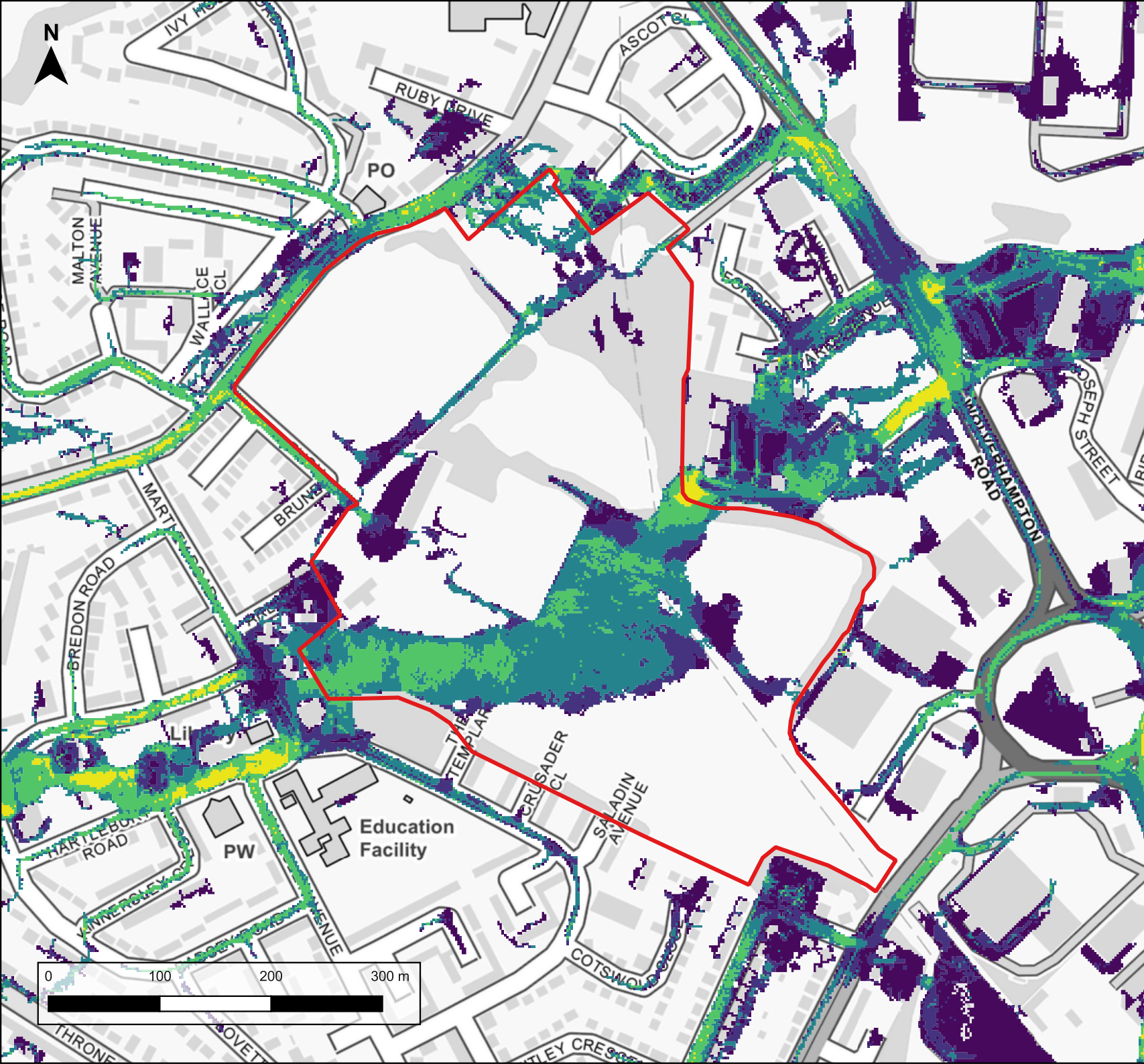
Risk of Flooding from
 Surface Water 3.3% AEP
 Hazard

Legend

- Site Boundary
- 3.3% AEP Hazard
 - Low - Caution
 - Danger for some
 - Danger for most
 - Danger for all



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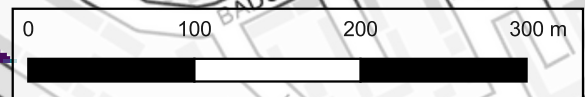
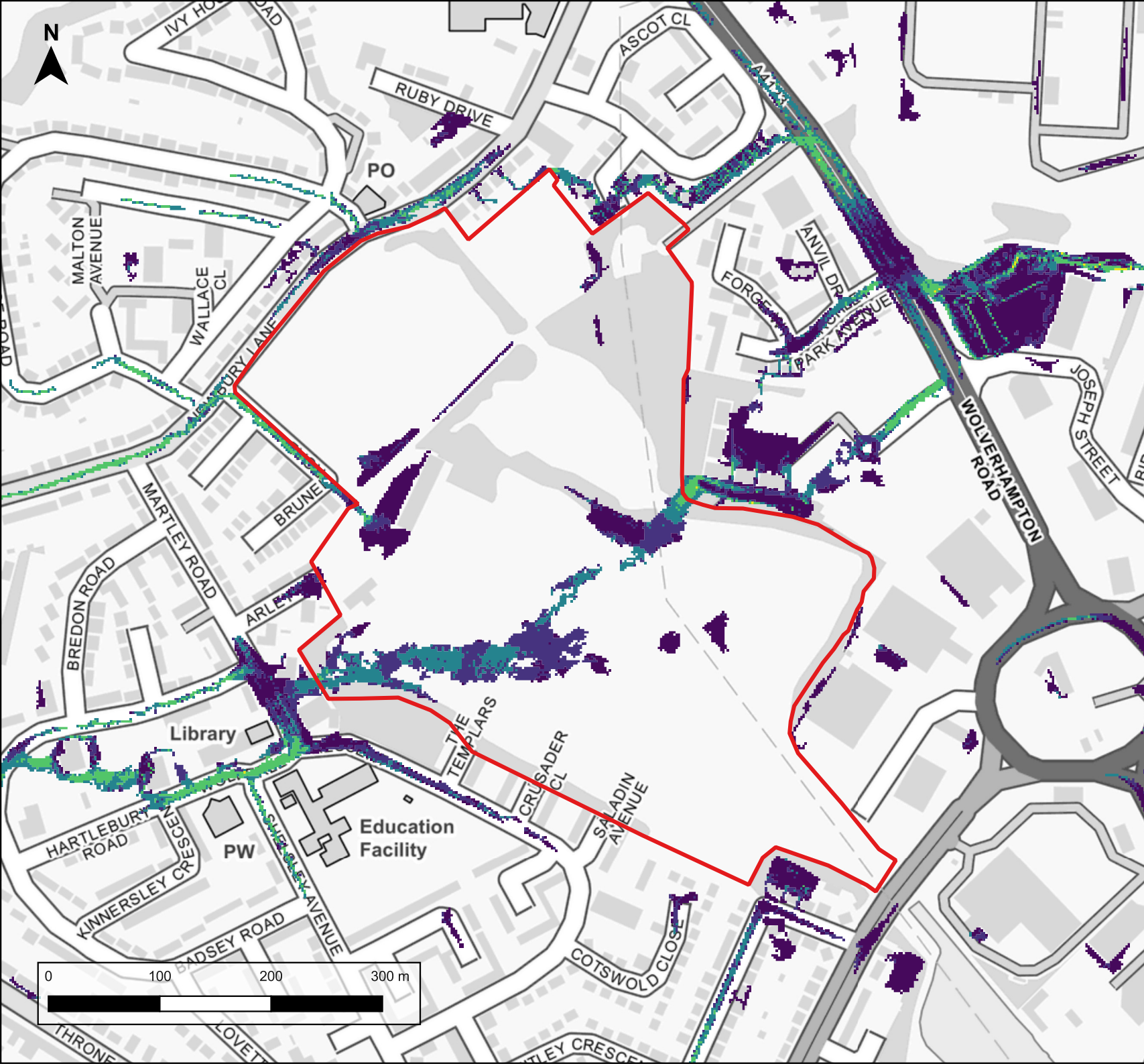


Risk of Flooding from
 Surface Water 0.1% AEP
 Velocity

Legend

- Site Boundary
- 0.1% AEP Velocity (m/s)**
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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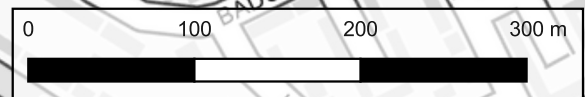
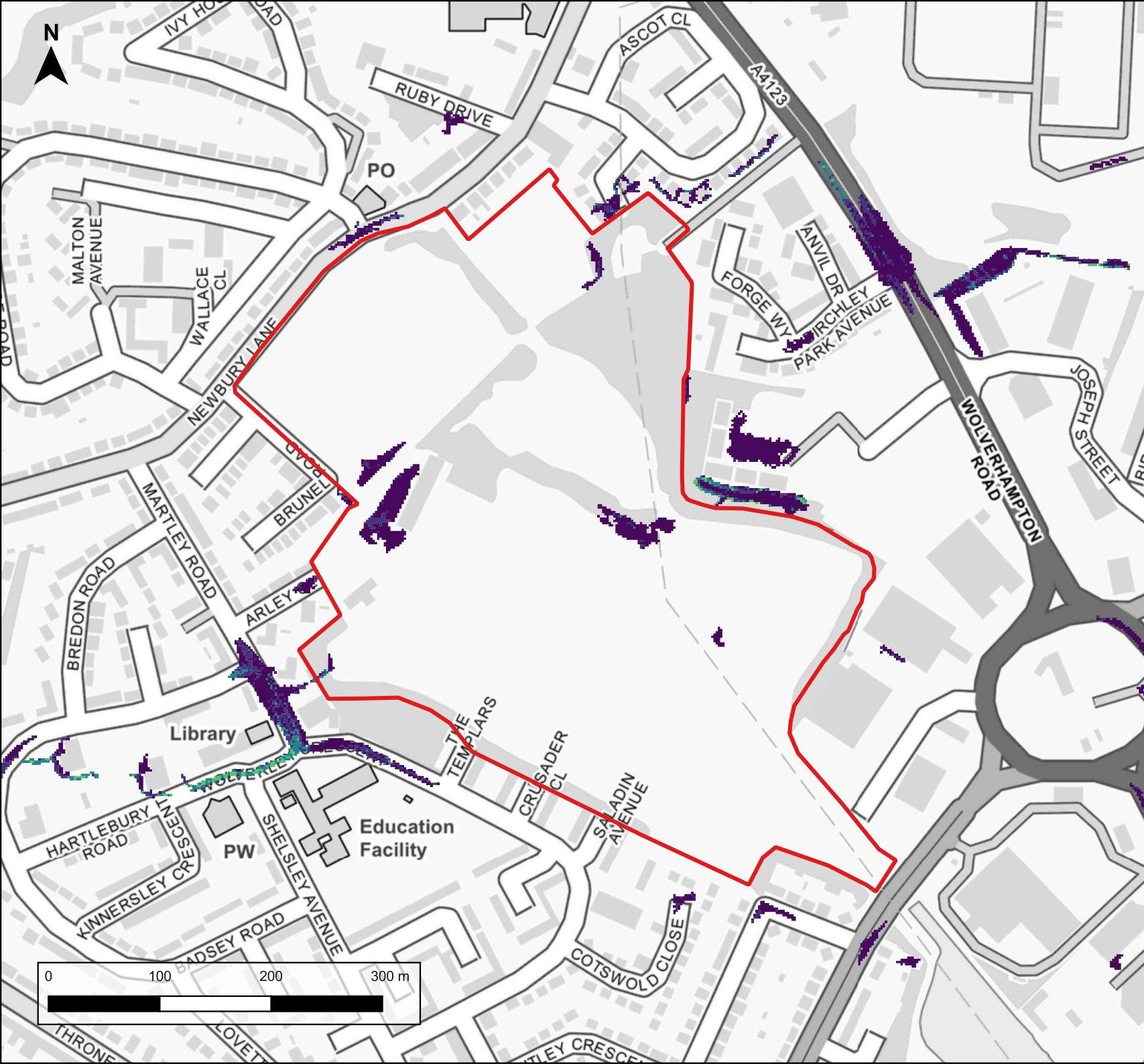
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Risk of Flooding from
 Surface Water 1% AEP
 Velocity

- Legend**
- Site Boundary
 - 1% AEP Velocity (m/s)**
 - < 0.25
 - 0.25 - 0.50
 - 0.50 - 1.00
 - 1.00 - 2.00
 - > 2.00

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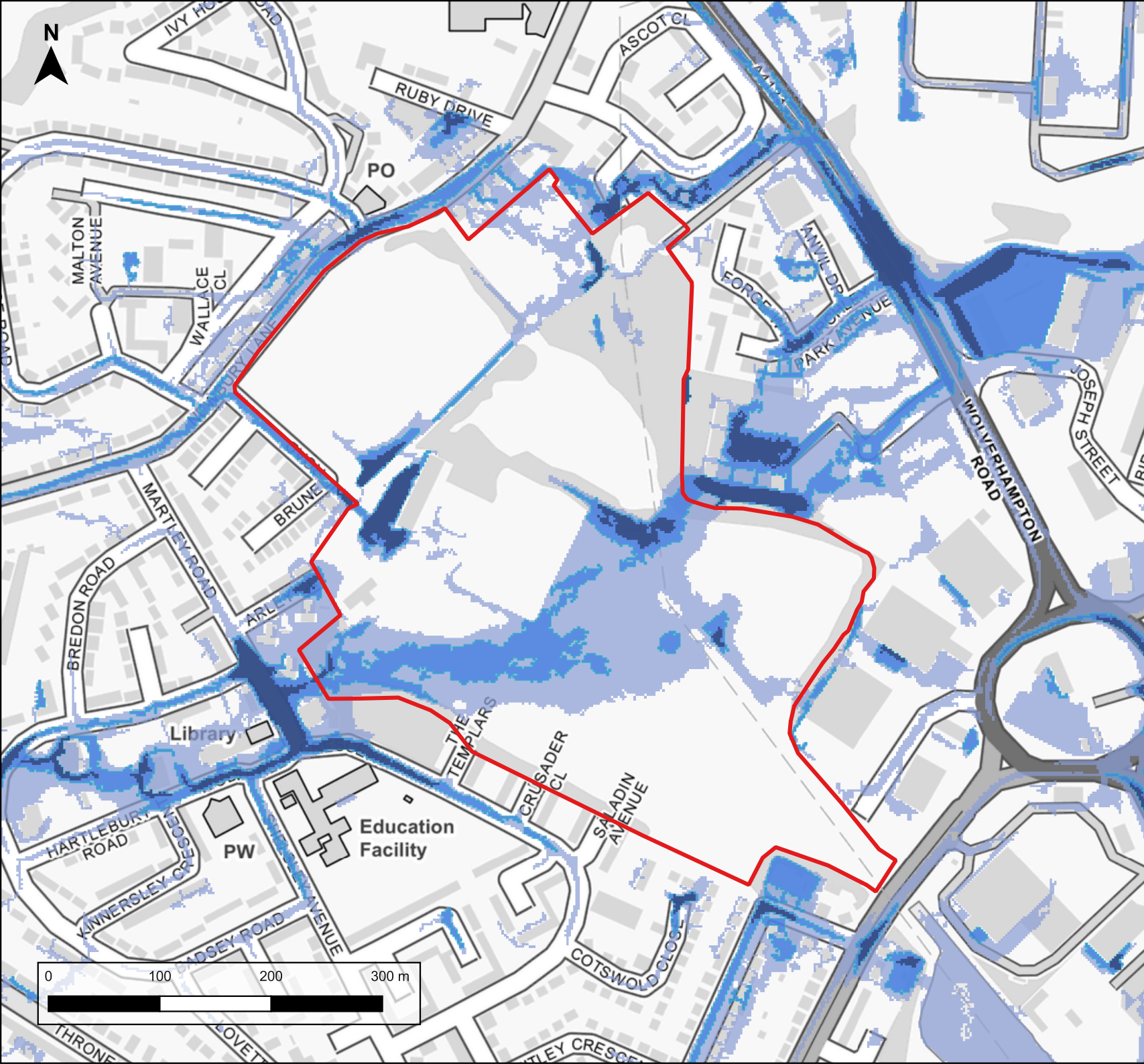


Risk of Flooding from
 Surface Water 3.3% AEP
 Velocity

Legend

- Site Boundary
- 3.3% AEP Velocity (m/s)**
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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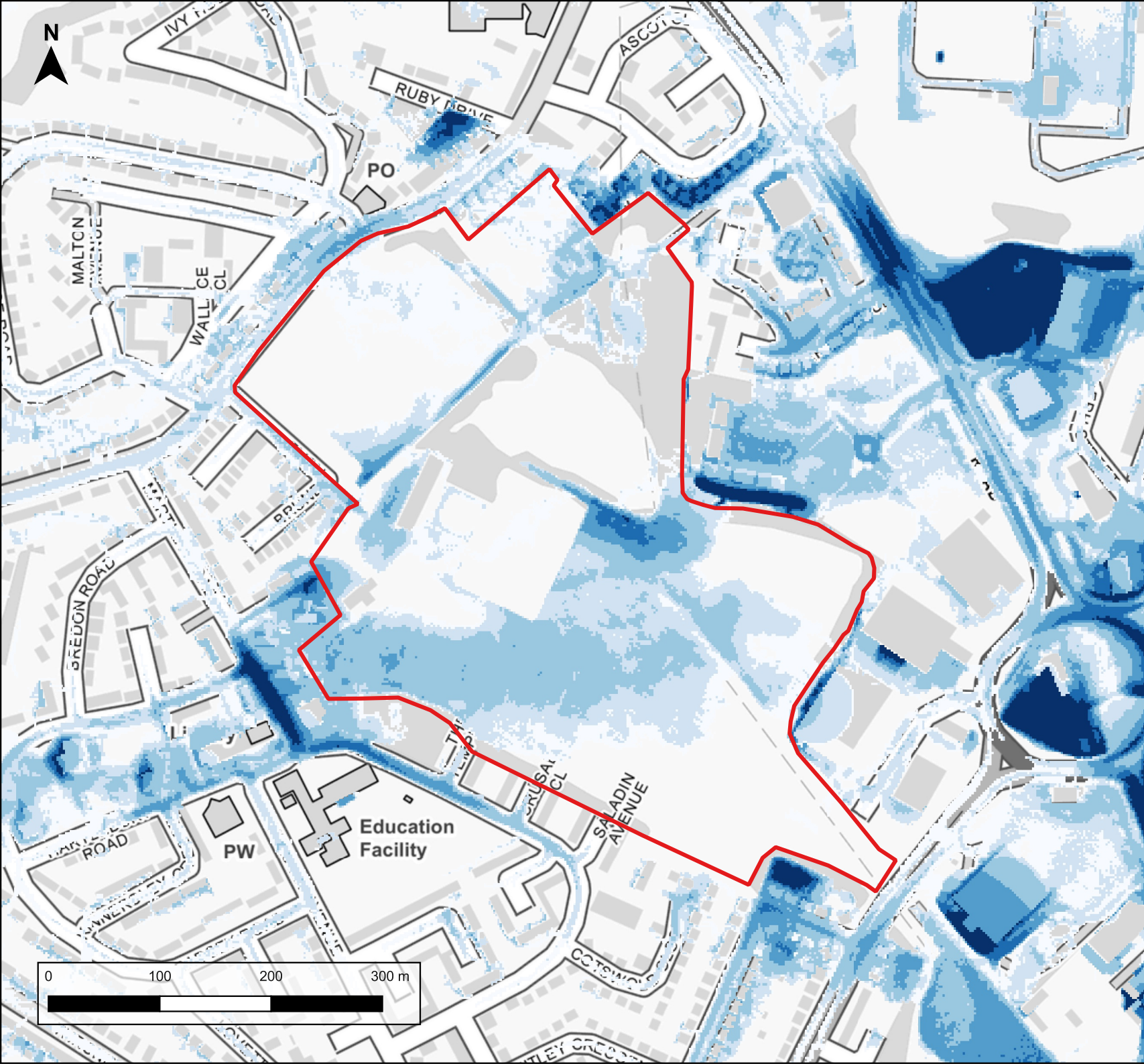


Surface Water Extents

Legend

- Site Boundary
- RoFSW 30 Year Extent (3.3% AEP)
- RoFSW 100 Year Extent (1.0% AEP)
- RoFSW 1000 Year Extent (0.1% AEP)

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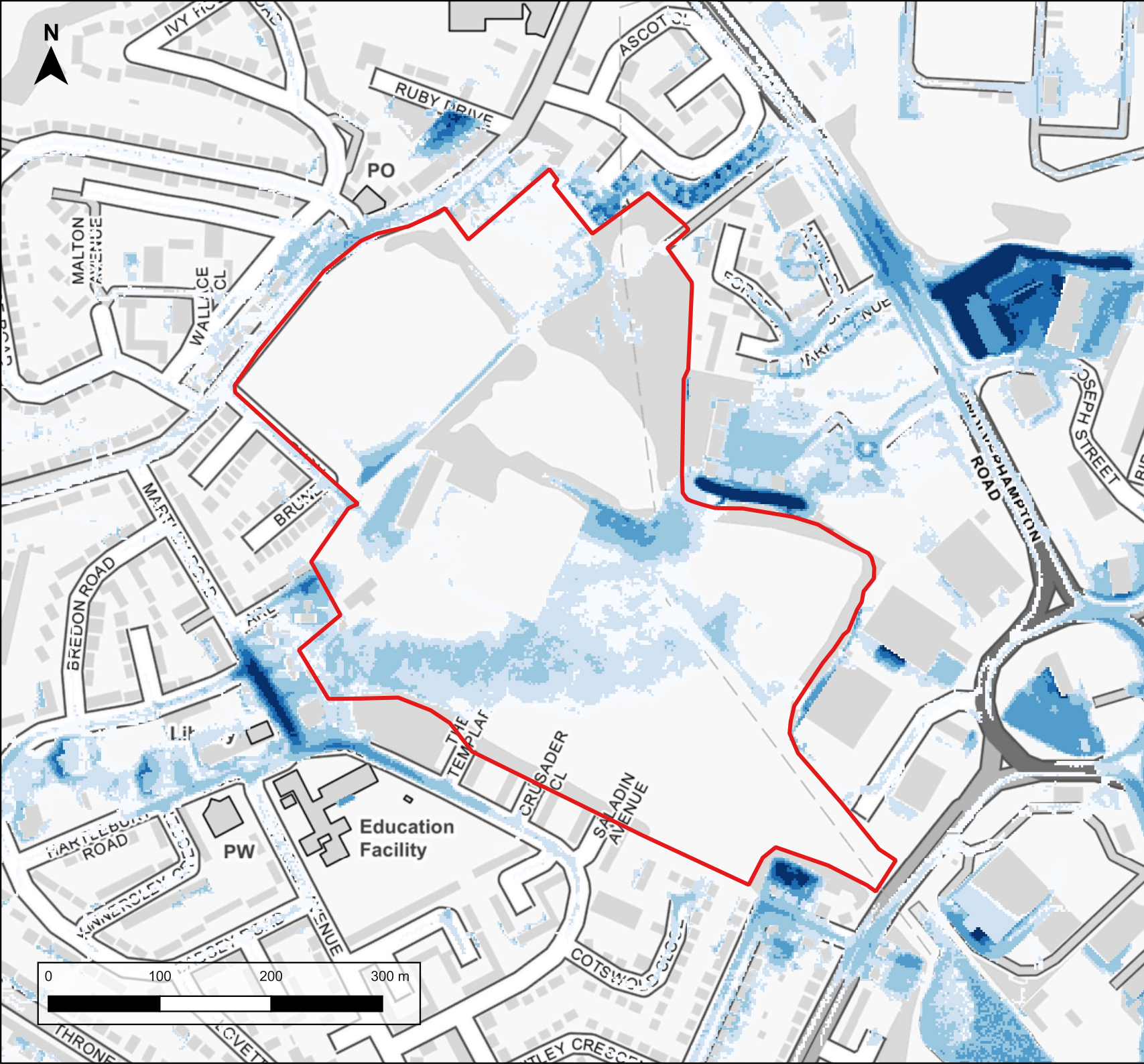
**Risk of Flooding from
 Surface Water 0.1% + CC
 Depth**

Legend

- Site Boundary
- 0.1% + Upper End CC
 Depth (m)**
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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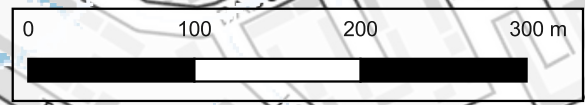
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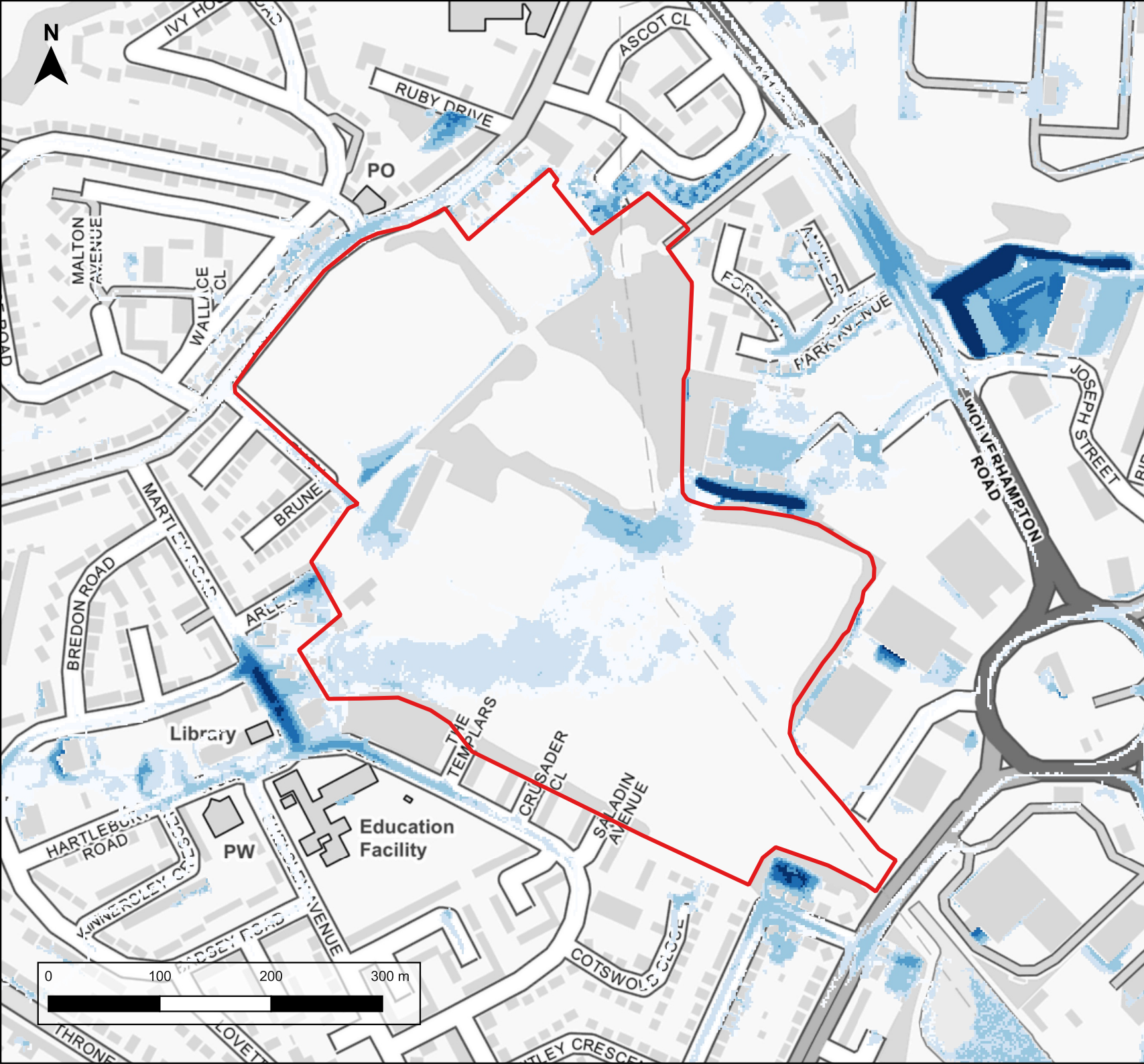
Risk of Flooding from
 Surface Water 1% + CC
 Depth

Legend

- Site Boundary
- 1% + Upper End CC
 Depth (m)
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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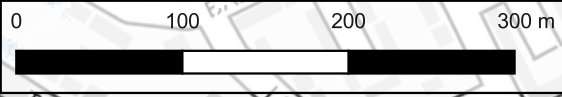
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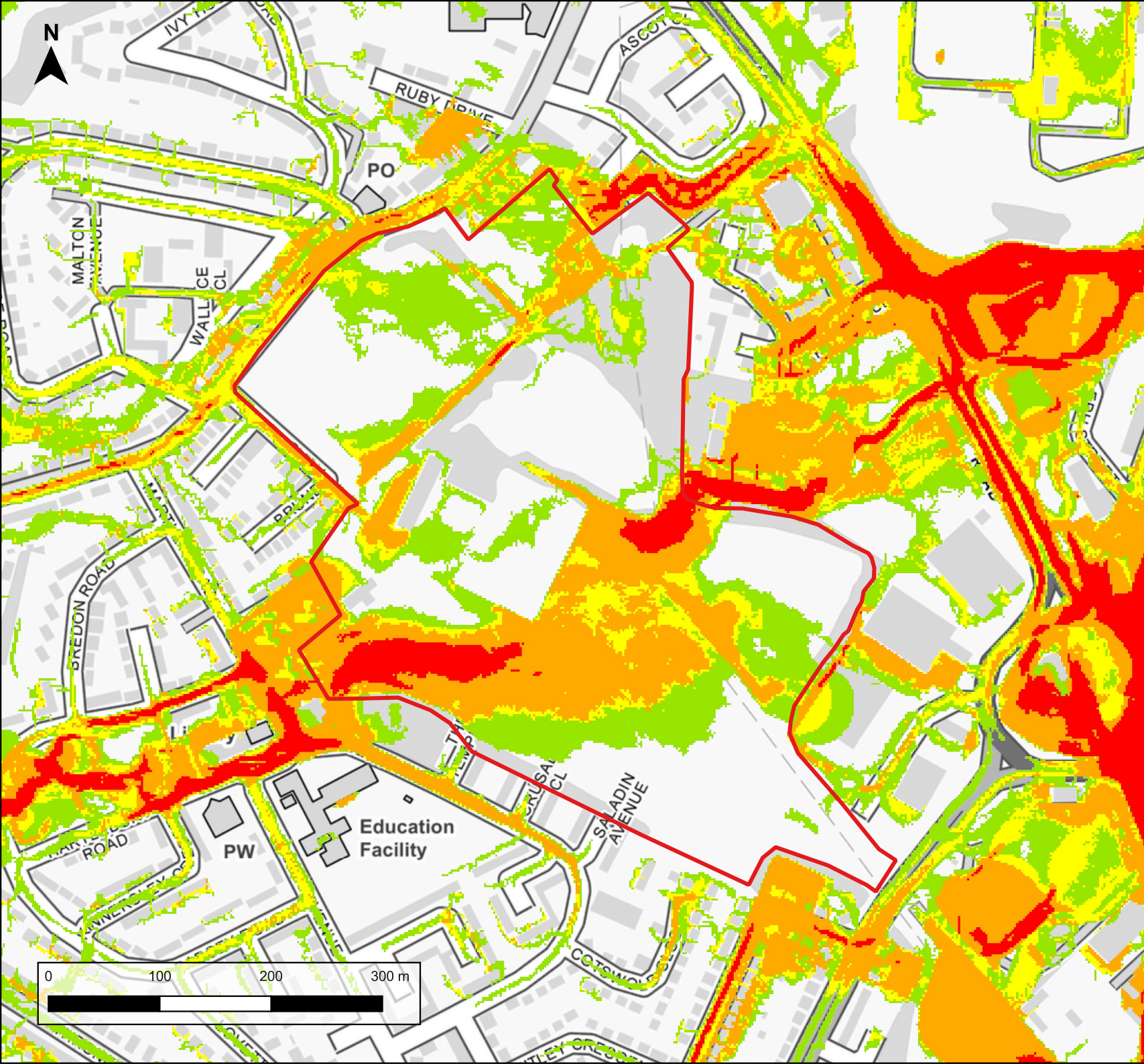
Risk of Flooding from
 Surface Water 3.3% + CC
 Depth

Legend

- Site Boundary
- 3.3% + Upper End CC
 Depth (m)
- < 0.15
- 0.15 - 0.30
- 0.30 - 0.60
- 0.60 - 0.90
- 0.90 - 1.20
- > 1.20



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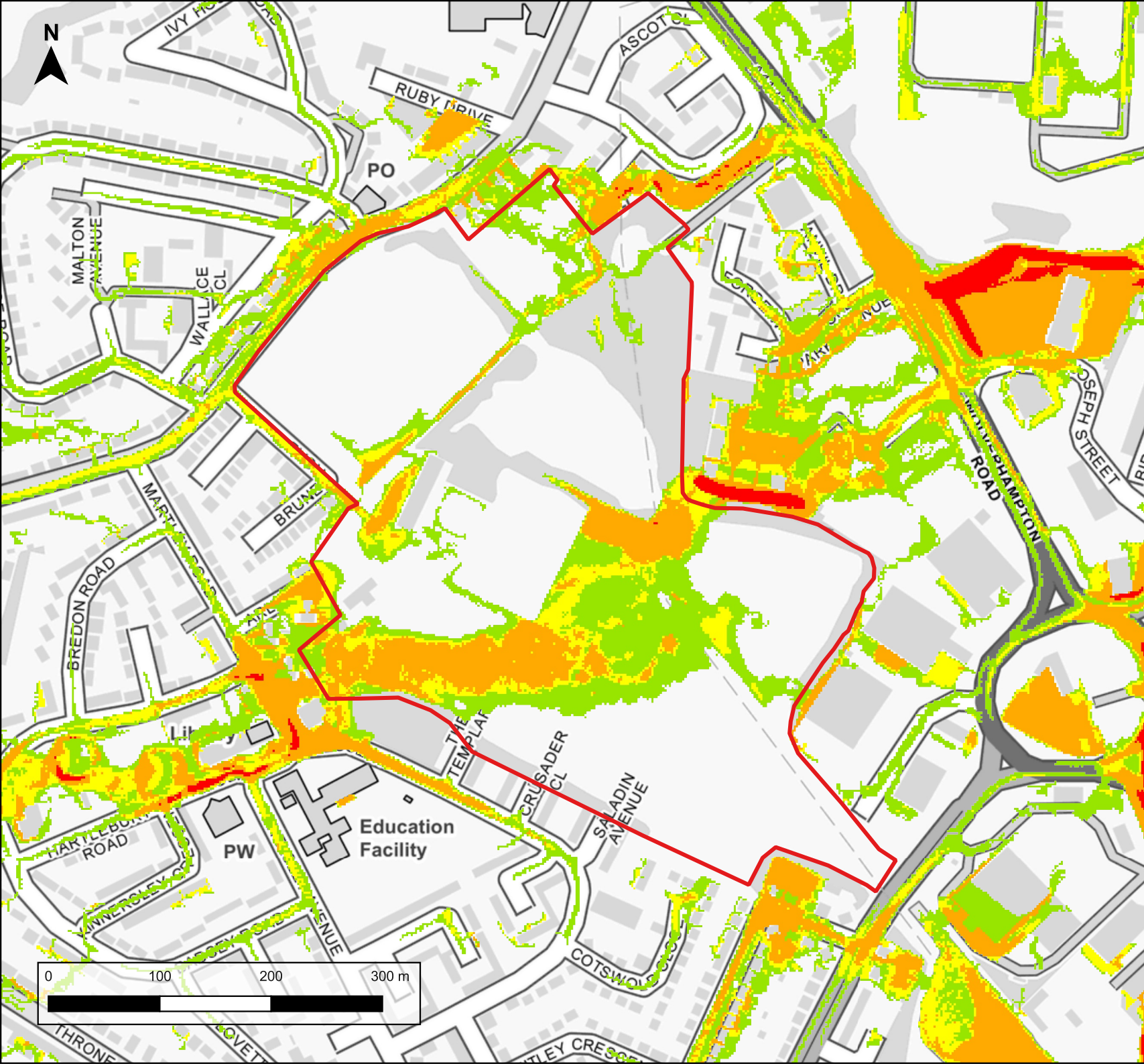
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Risk of Flooding from
 Surface Water 0.1% + CC
 Hazard

- Legend**
- Site Boundary
 - 0.1% + Upper End CC Hazard**
 - Low - Caution
 - Danger for some
 - Danger for most
 - Danger for all

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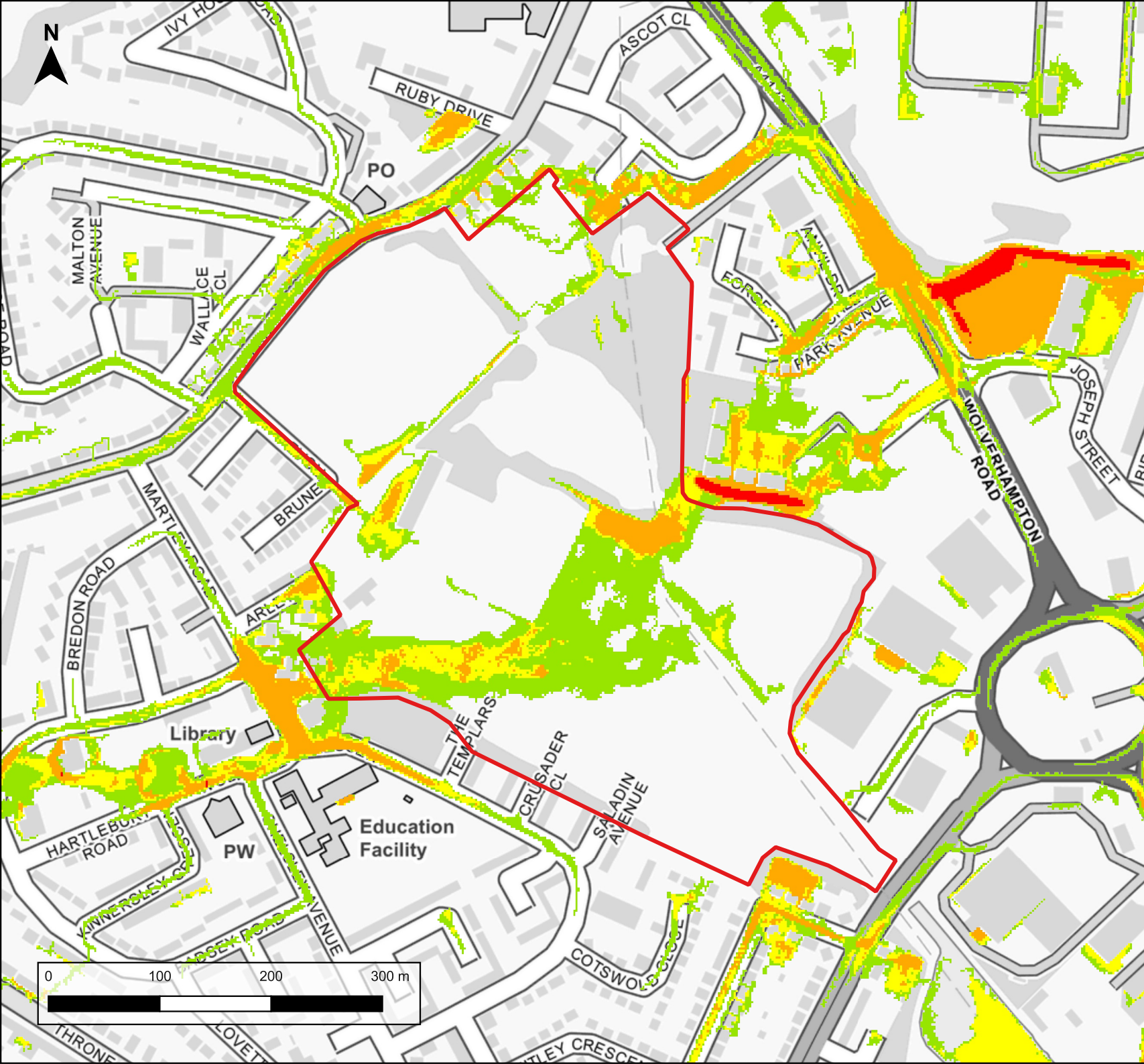


**Risk of Flooding from
 Surface Water 1% + CC
 Hazard**

Legend

- Site Boundary
- 1% + Upper End CC Hazard**
- Low - Caution
- Danger for some
- Danger for most
- Danger for all

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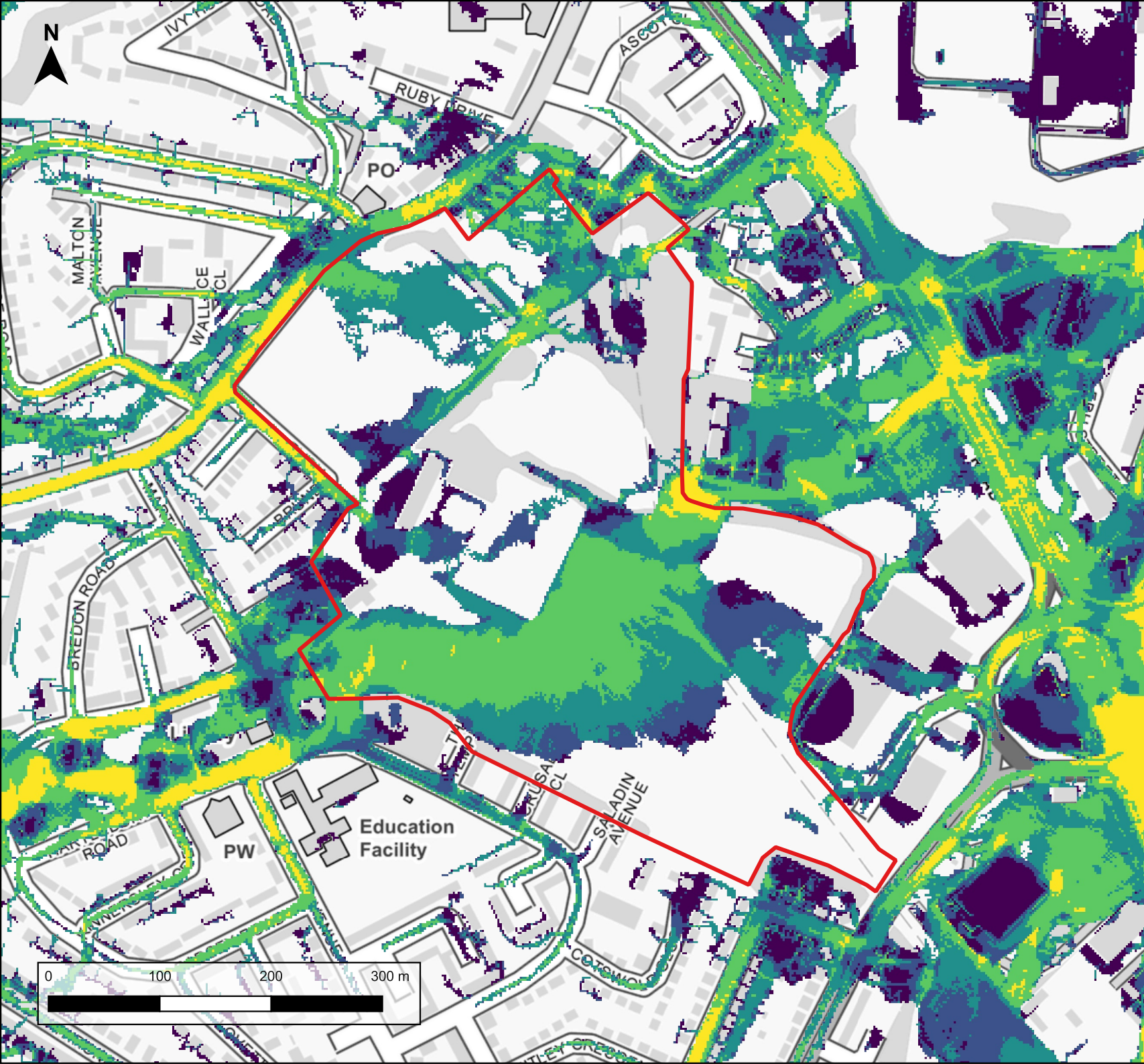


Risk of Flooding from
 Surface Water 3.3% + CC
 Hazard

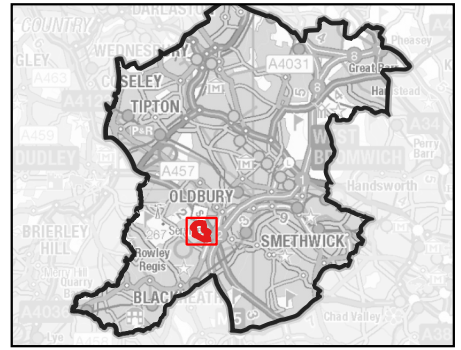
- Legend**
- Site Boundary
 - 3.3% + Upper End CC Hazard**
 - Low - Caution
 - Danger for some
 - Danger for most
 - Danger for all



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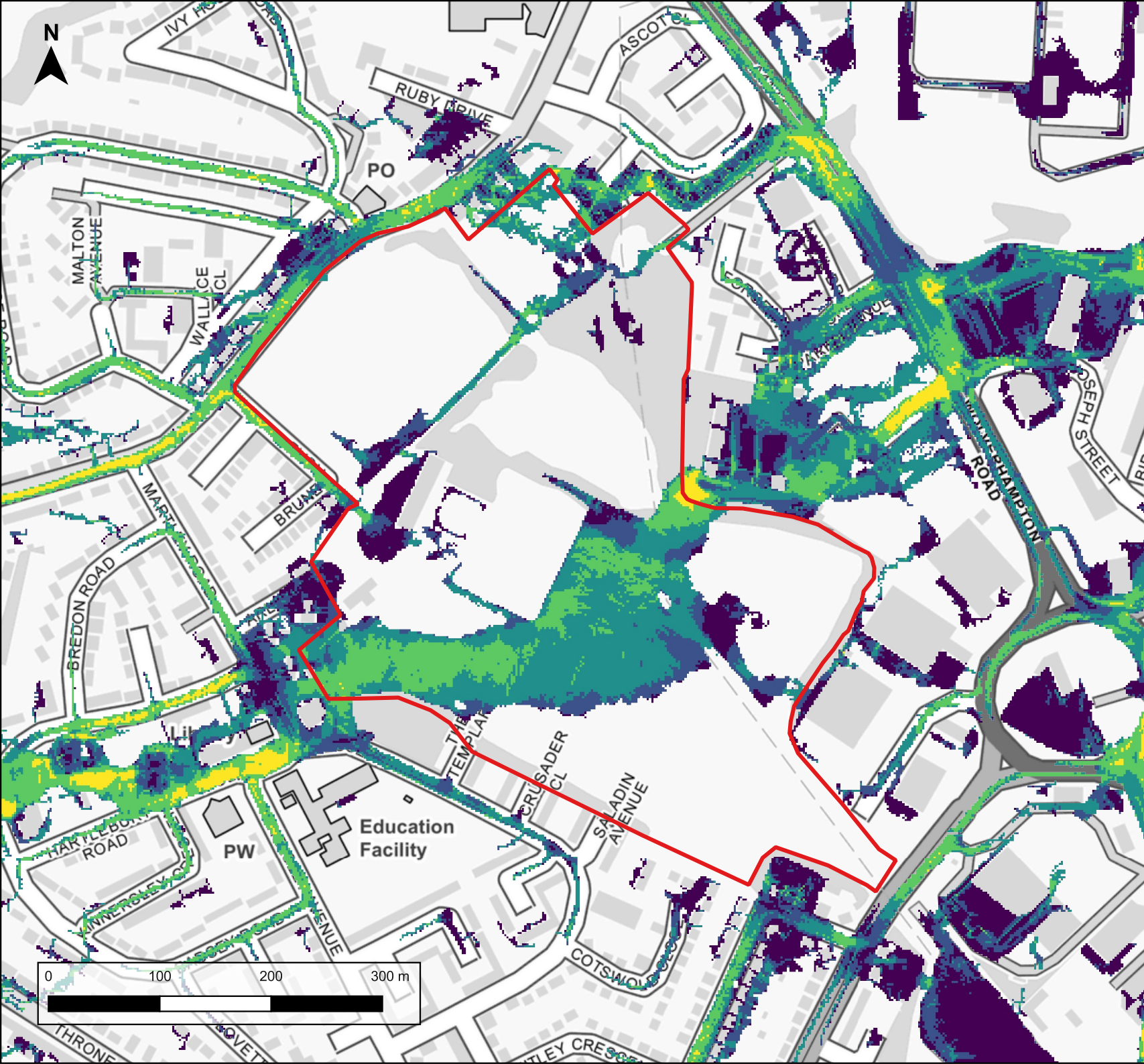


Risk of Flooding from
 Surface Water 0.1% + CC
 Velocity

Legend

- Site Boundary
- 0.1% + Upper End CC Velocity (m/s)
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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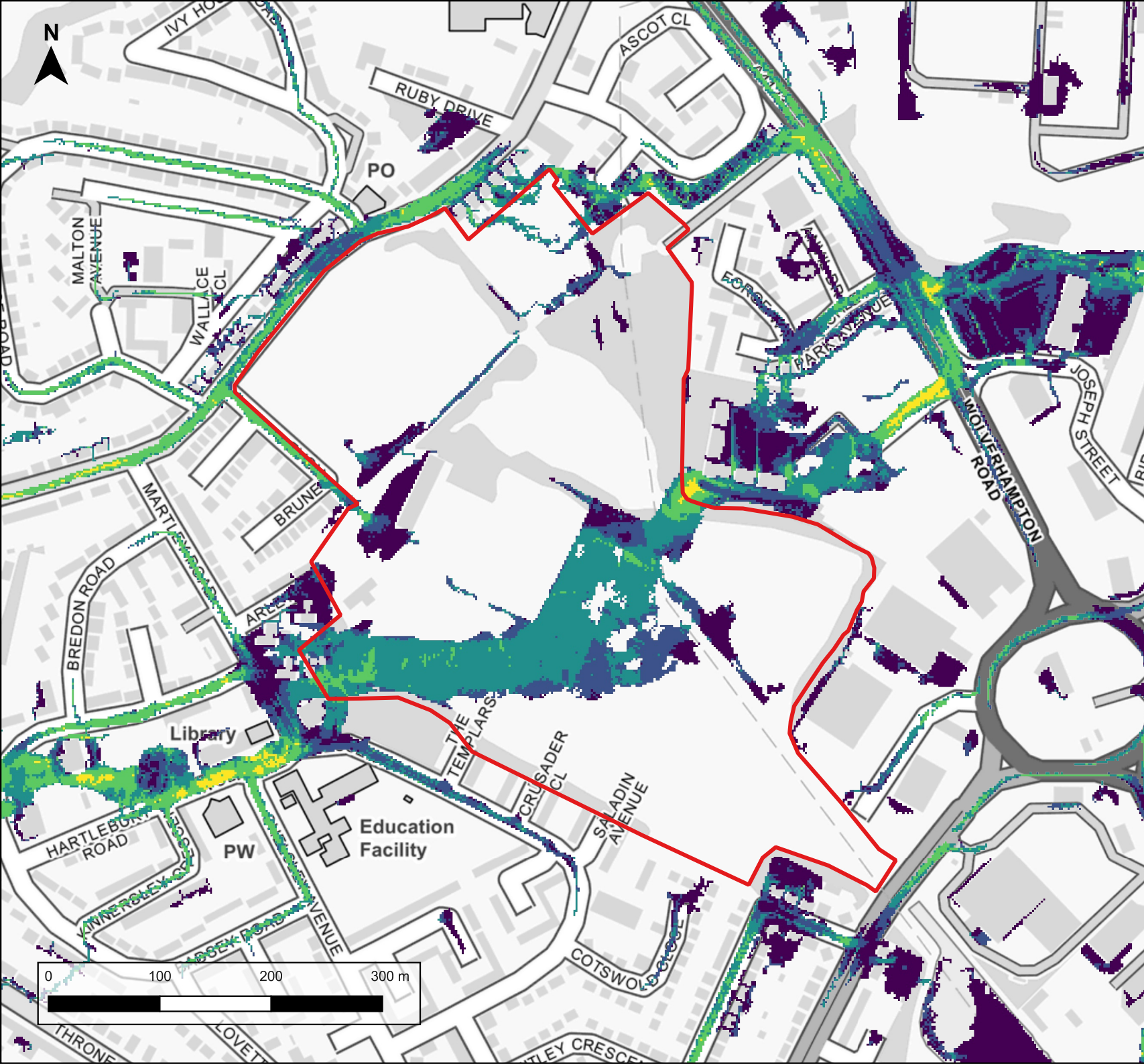


Risk of Flooding from
 Surface Water 1% + CC
 Velocity

Legend

- Site Boundary
- 1% + Upper End CC Velocity (m/s)
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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Risk of Flooding from
 Surface Water 3.3% + CC
 Velocity

Legend

- Site Boundary
- 3.3% + Upper End CC Velocity (m/s)
- < 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

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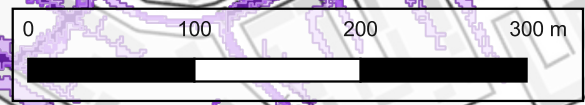
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**Risk of Flooding from
 Surface Water Plus Climate
 Change Extents**

Legend

-  Site Boundary
-  3.3% + Upper End CC
-  1.0% + Upper End CC
-  0.1% + Upper End CC



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