

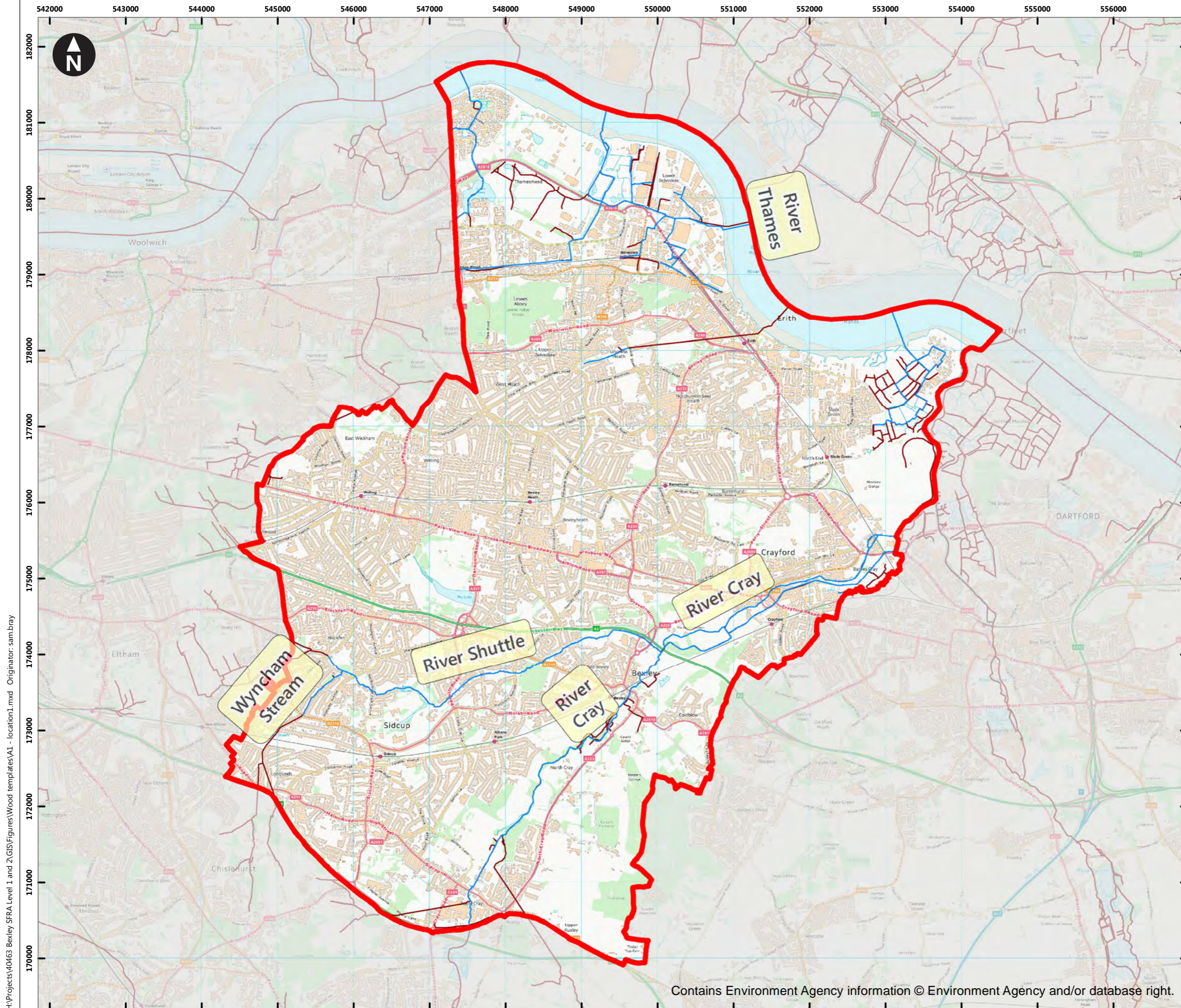


Appendix A

Figures

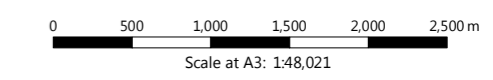
Level 1 SFRA 2020 figures
supplied separately to main
report.





Key

- London Borough of Bexley Boundary
- Main Rivers
- Ordinary Watercourses



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London Borough of Bexley
Level 1 SFRA

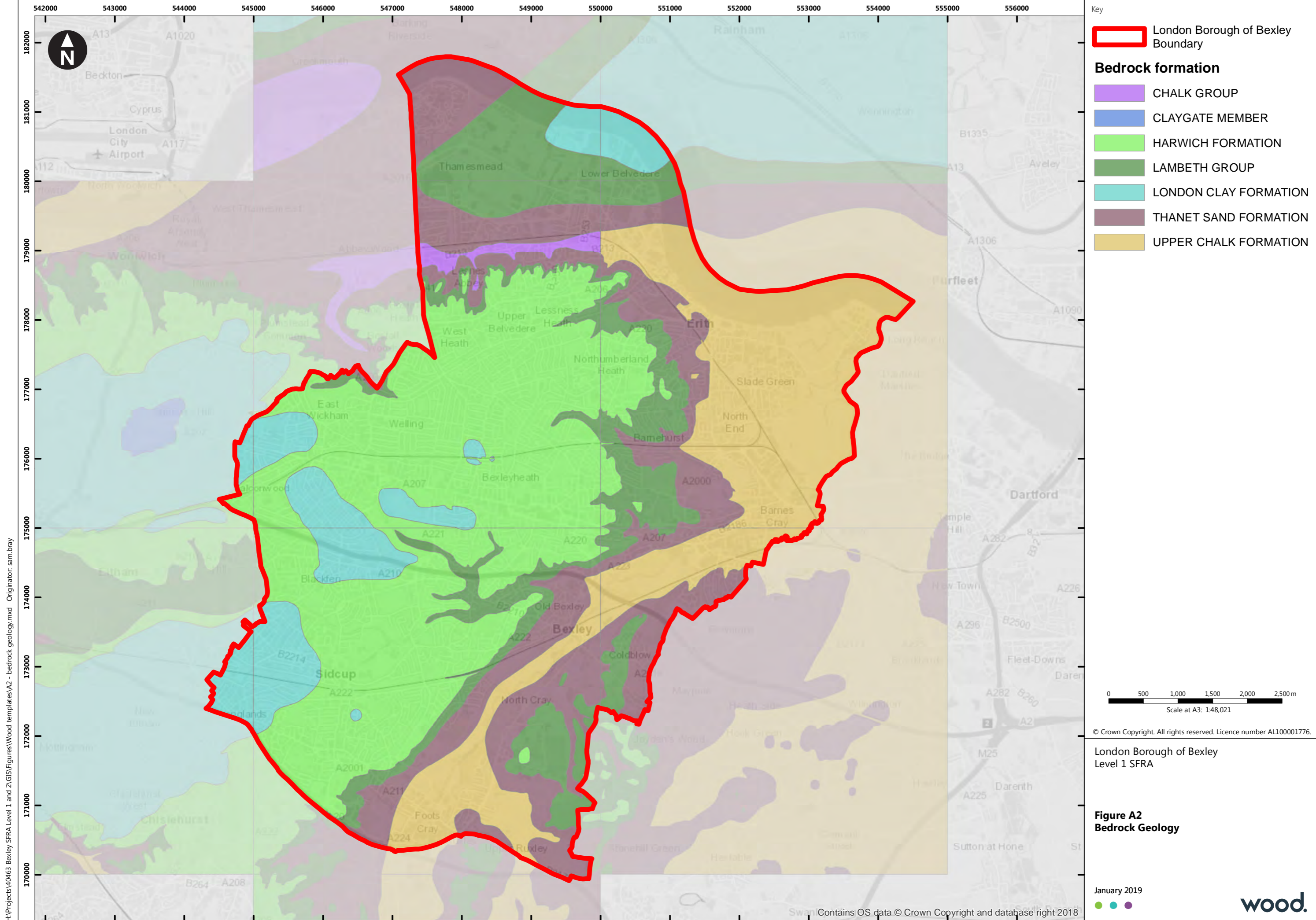
Figure A1
London Borough of Bexley Boundary and Main Rivers

January 2019



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H:\Projects\40463 Bexley SFRA Level 1 and 2\GIS\Figures\Wood templates\A2 - bedrock geology.mxd Originator: sam.bray

Key

London Borough of Bexley Boundary

Bedrock formation

- CHALK GROUP
- CLAYGATE MEMBER
- HARWICH FORMATION
- LAMBETH GROUP
- LONDON CLAY FORMATION
- THANET SAND FORMATION
- UPPER CHALK FORMATION

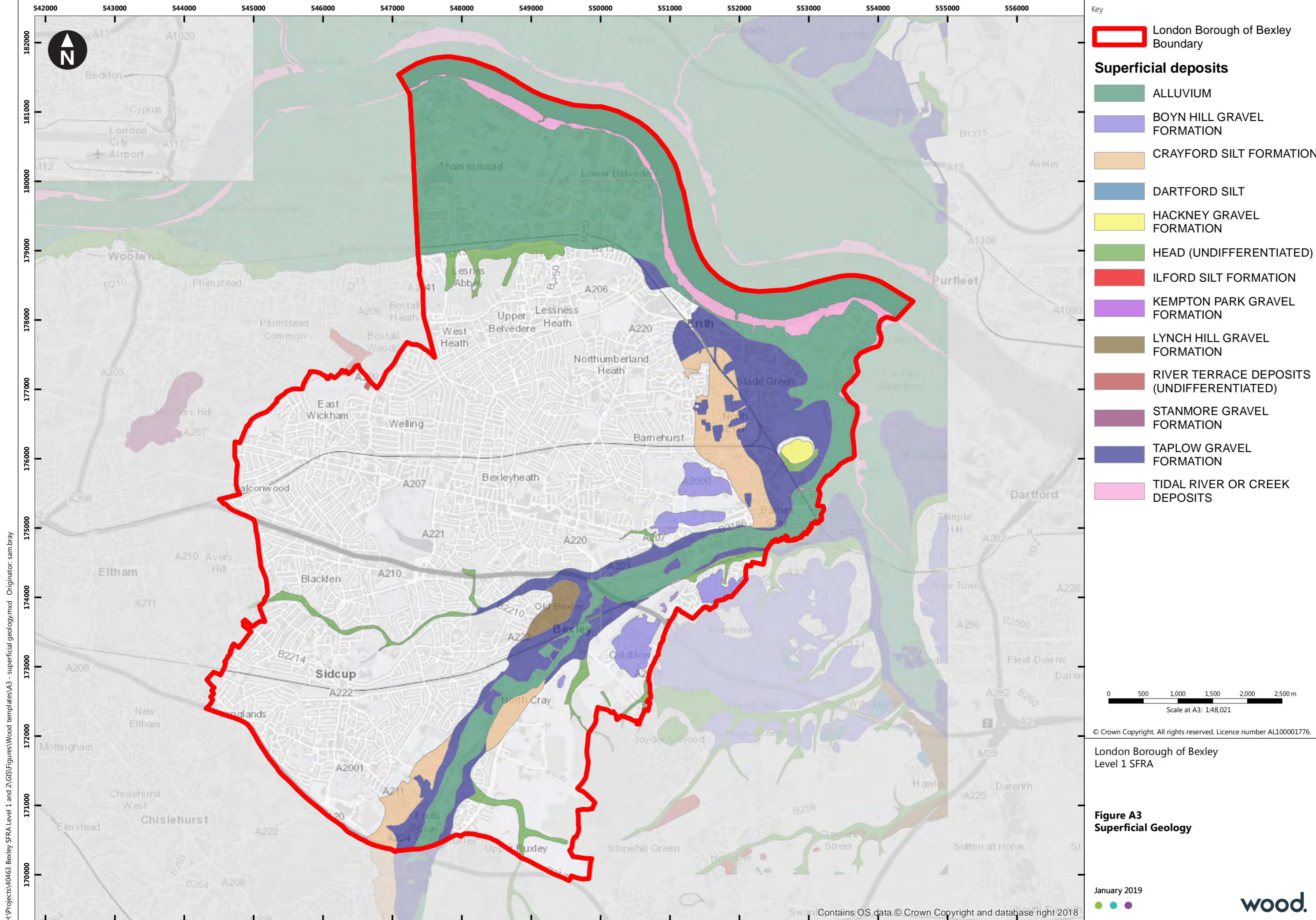
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 Scale at A3: 1:48,021

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 Level 1 SFRA

Figure A2
Bedrock Geology

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- Key
- London Borough of Bexley Boundary
- Superficial deposits**
- ALLUVIUM
 - BOYN HILL GRAVEL FORMATION
 - CRAYFORD SILT FORMATION
 - DARTFORD SILT
 - HACKNEY GRAVEL FORMATION
 - HEAD (UNDIFFERENTIATED)
 - ILFORD SILT FORMATION
 - KEMPTON PARK GRAVEL FORMATION
 - LYNCH HILL GRAVEL FORMATION
 - RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)
 - STANMORE GRAVEL FORMATION
 - TAPLOW GRAVEL FORMATION
 - TIDAL RIVER OR CREEK DEPOSITS

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Scale at A3: 1:48,021

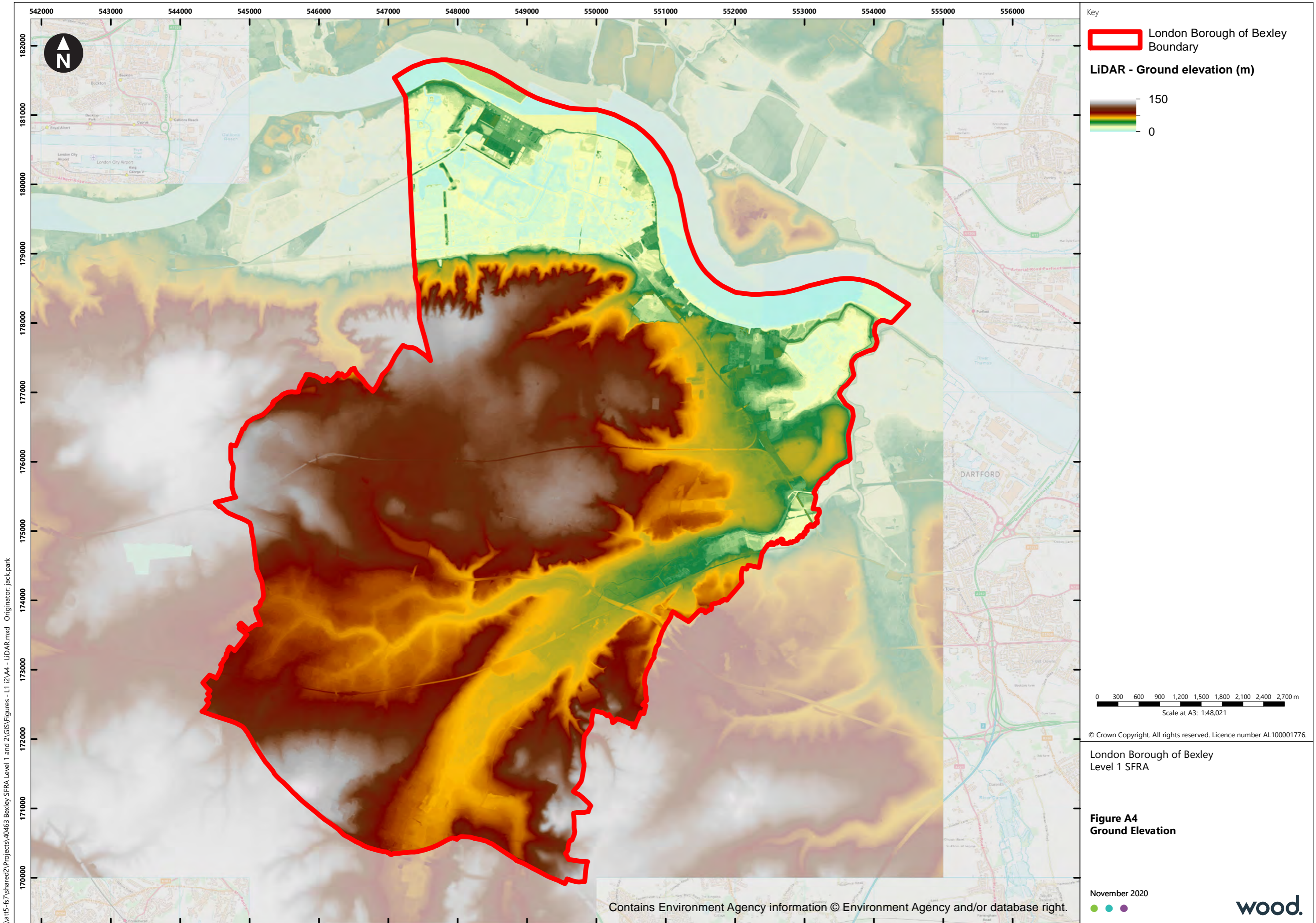
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London Borough of Bexley
Level 1 SFRA

Figure A3
Superficial Geology


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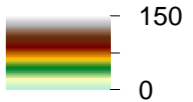


\\att5-1s7\shared2\Projects\40463 Bexley_SFRA_Level 1 and 2\GIS\Figures - L1\2\VA4 - LiDAR.mxd Originator: jack.park

Key

 London Borough of Bexley Boundary

LiDAR - Ground elevation (m)

 150
0

0 300 600 900 1,200 1,500 1,800 2,100 2,400 2,700 m
Scale at A3: 1:48,021

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London Borough of Bexley
Level 1 SFRA

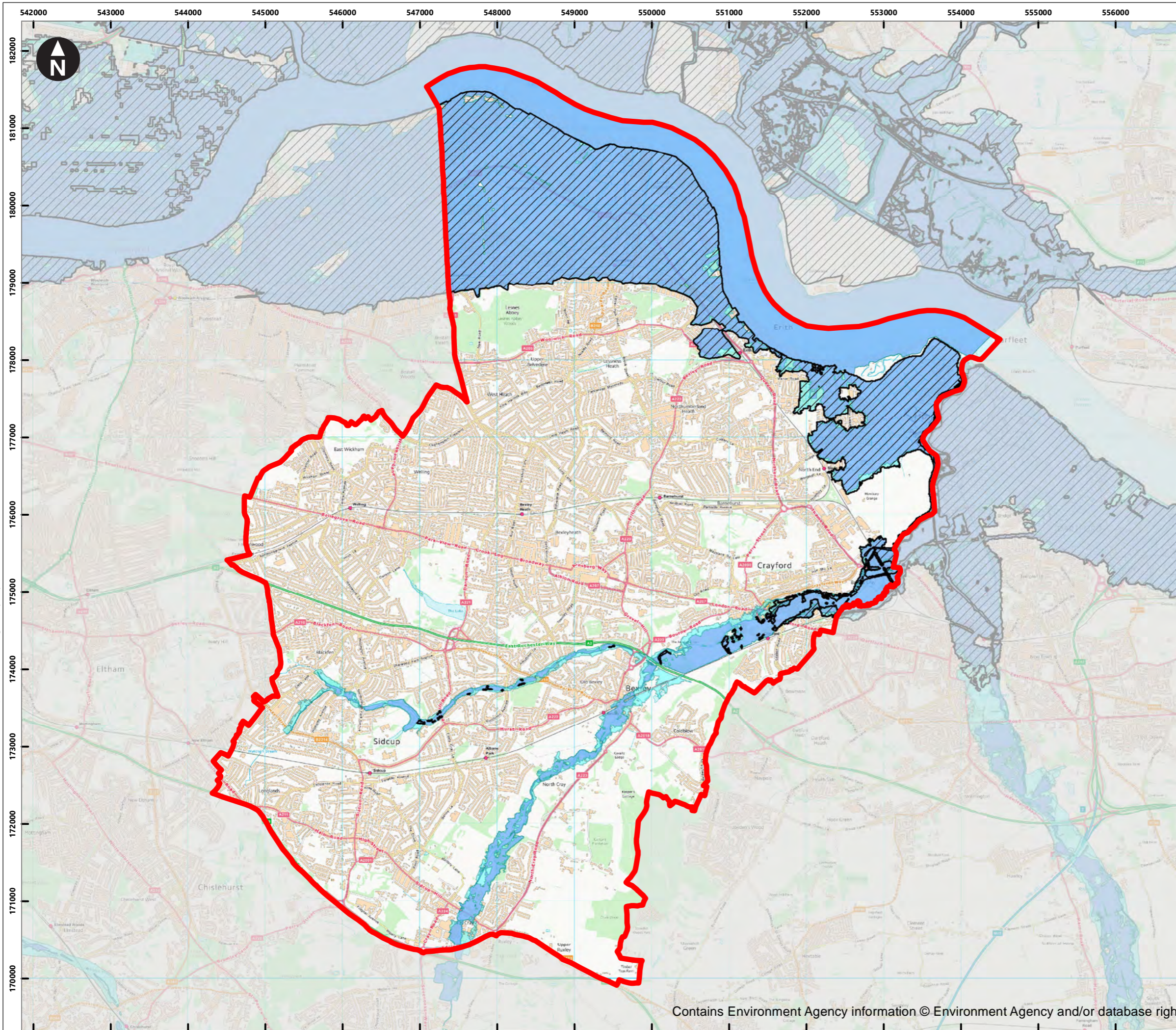
Figure A4
Ground Elevation

November 2020





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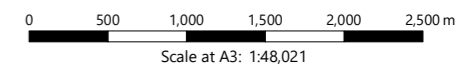


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Key

-  London Borough of Bexley Boundary
- Flood Map for Planning**
-  Areas Benefiting from Flood Defences
-  Flood Zone 3
-  Flood Zone 2



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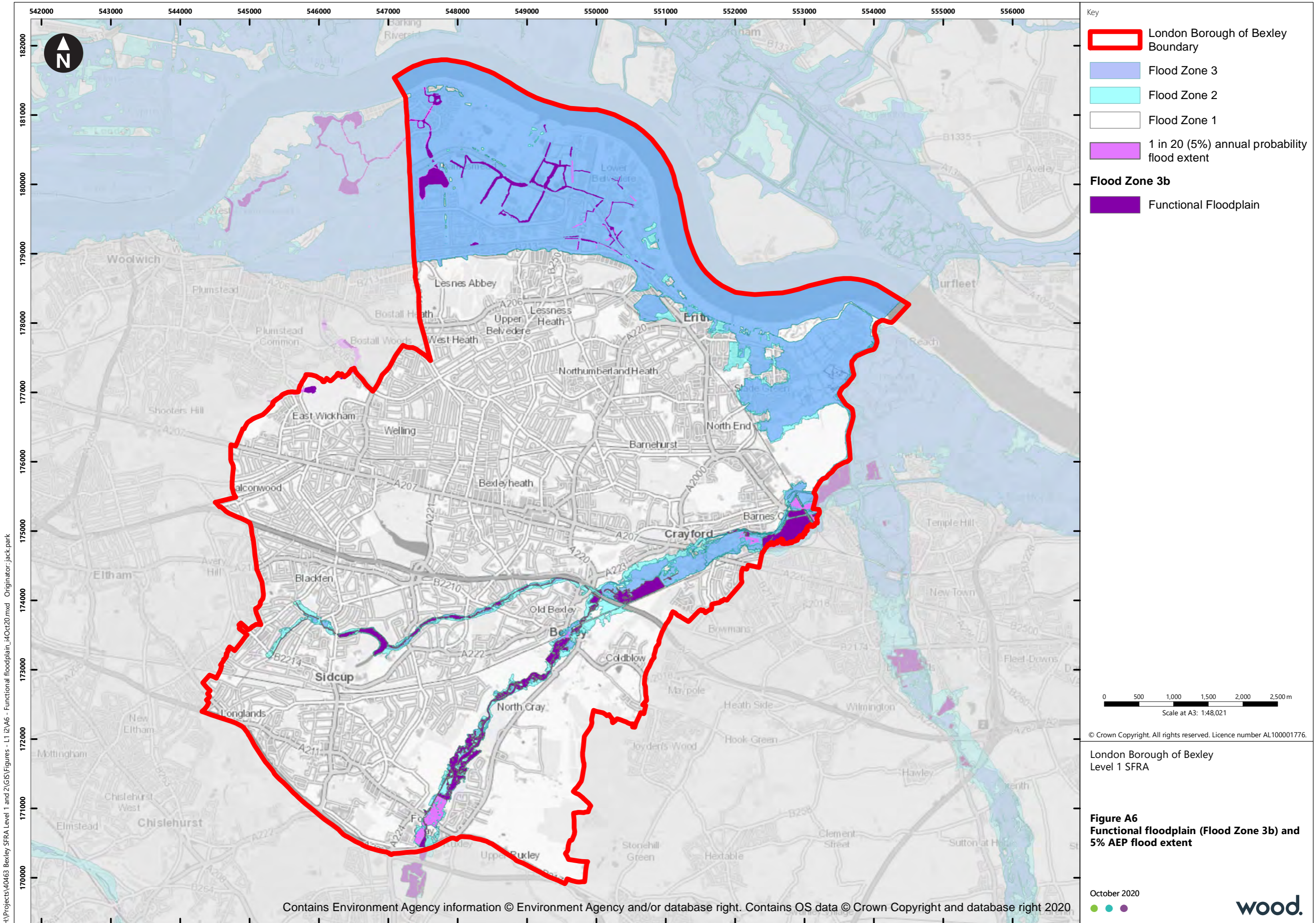
London Borough of Bexley
Level 1 SFRA

Figure A5
Flood Map for Planning

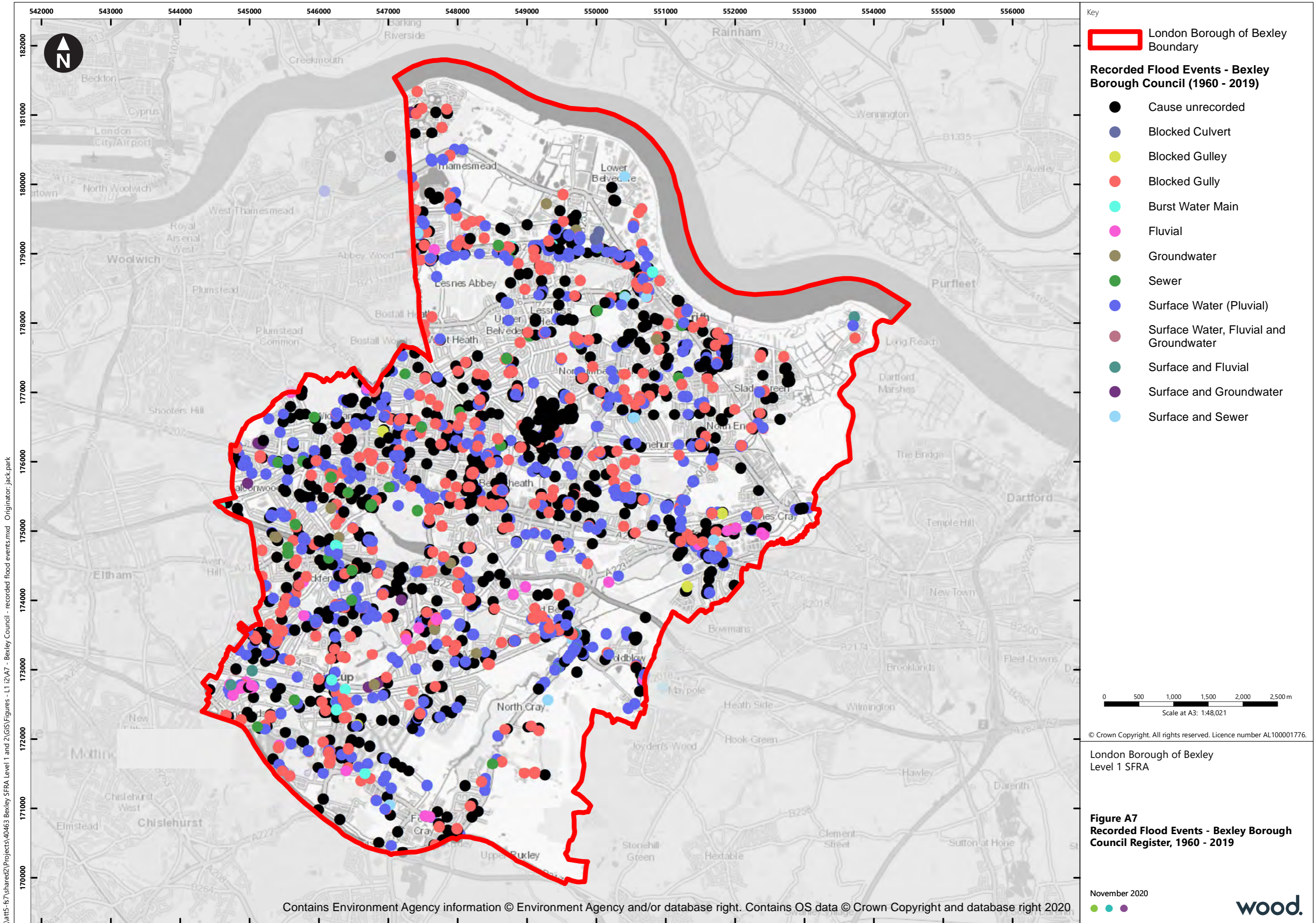
August 2020



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- Key
- London Borough of Bexley Boundary
- Recorded Flood Events - Bexley Borough Council (1960 - 2019)**
- Cause unrecorded
 - Blocked Culvert
 - Blocked Gully
 - Blocked Gully
 - Burst Water Main
 - Fluvial
 - Groundwater
 - Sewer
 - Surface Water (Pluvial)
 - Surface Water, Fluvial and Groundwater
 - Surface and Fluvial
 - Surface and Groundwater
 - Surface and Sewer

0 500 1,000 1,500 2,000 2,500 m
Scale at A3: 1:48,021

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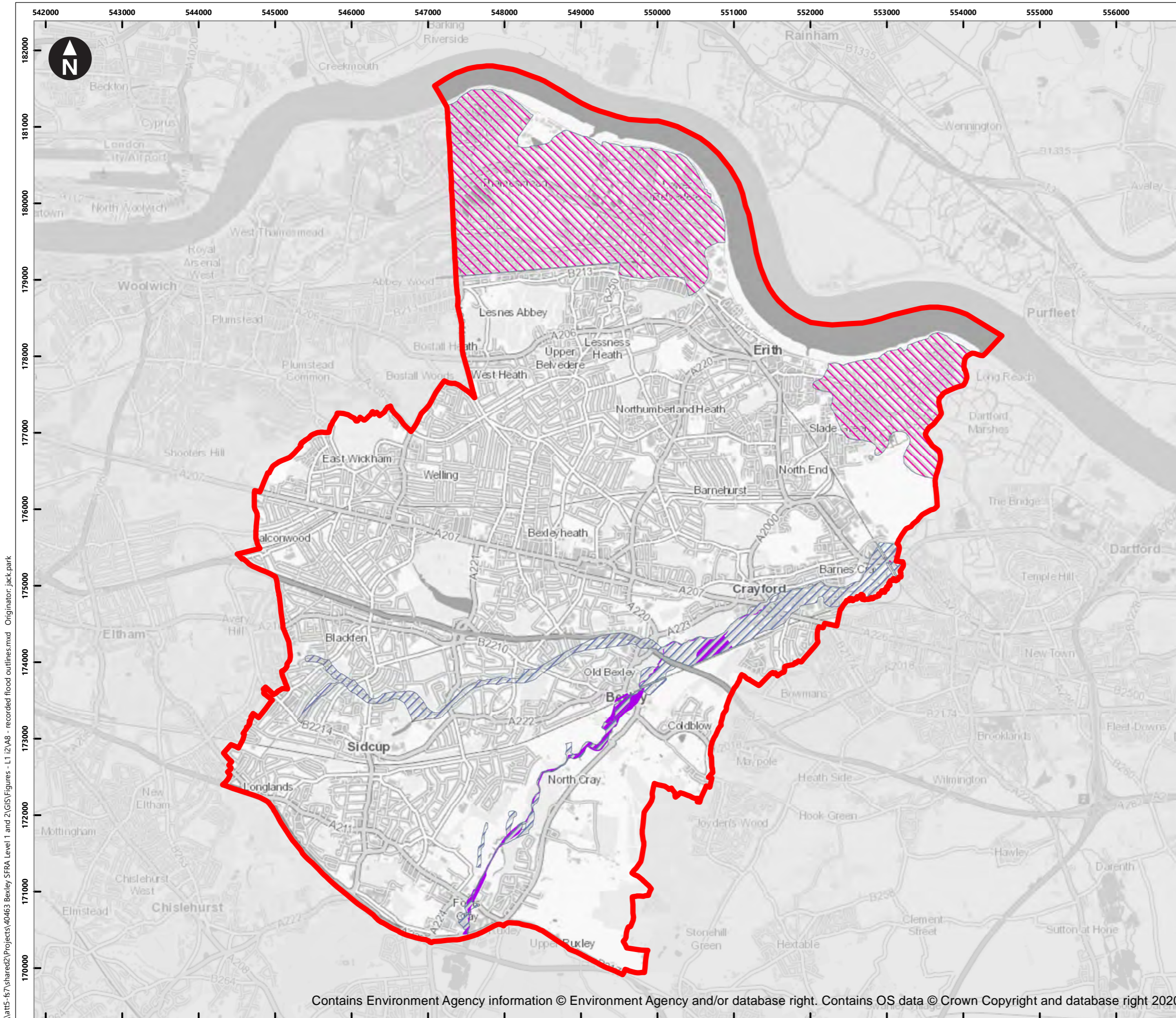
London Borough of Bexley
Level 1 SFRA

Figure A7
Recorded Flood Events - Bexley Borough Council Register, 1960 - 2019

November 2020

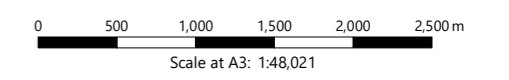


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Key

- London Borough of Bexley Boundary
- Recorded flood outlines**
 - 1953 Event
 - 1968 Event
 - 1977 Event

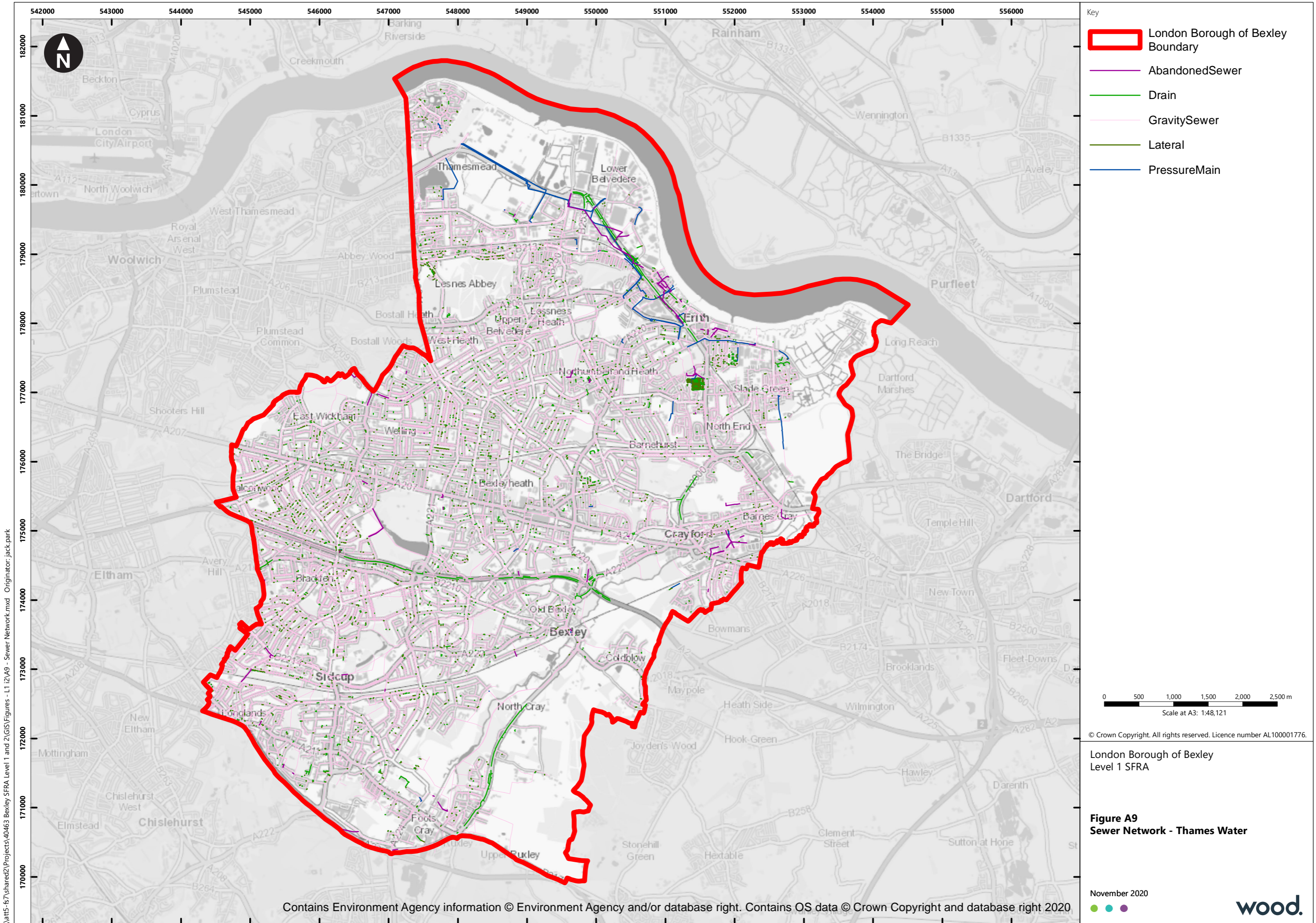


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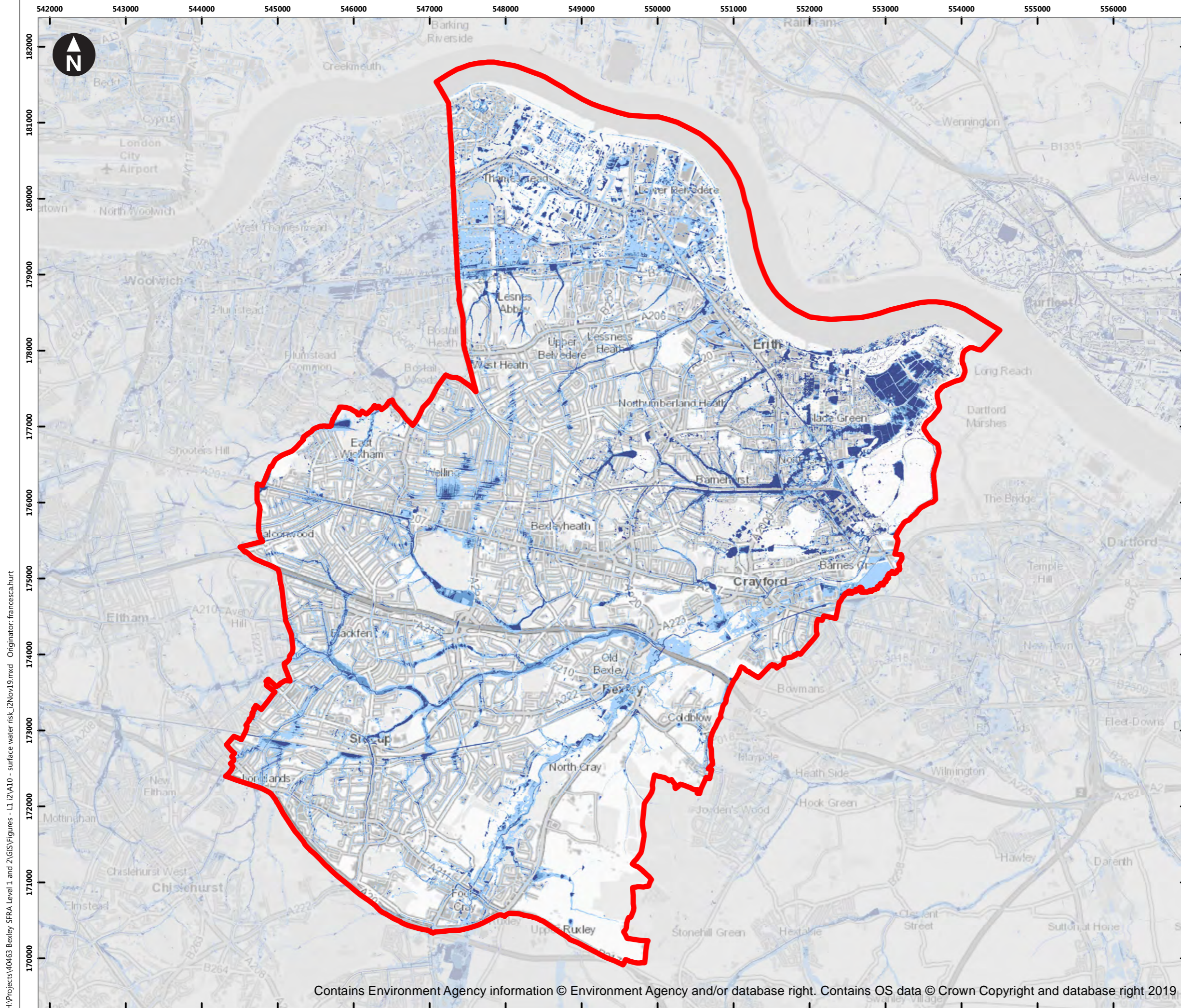
London Borough of Bexley
Level 1 SFRA

Figure A8
Recorded Flood Outlines

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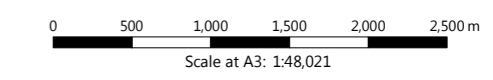


Key

London Borough of Bexley Boundary

Surface water flood extents

- 1 in 30 (3.33%) annual probability
- 1 in 100 (1%) annual probability
- 1 in 1000 (0.1%) annual probability



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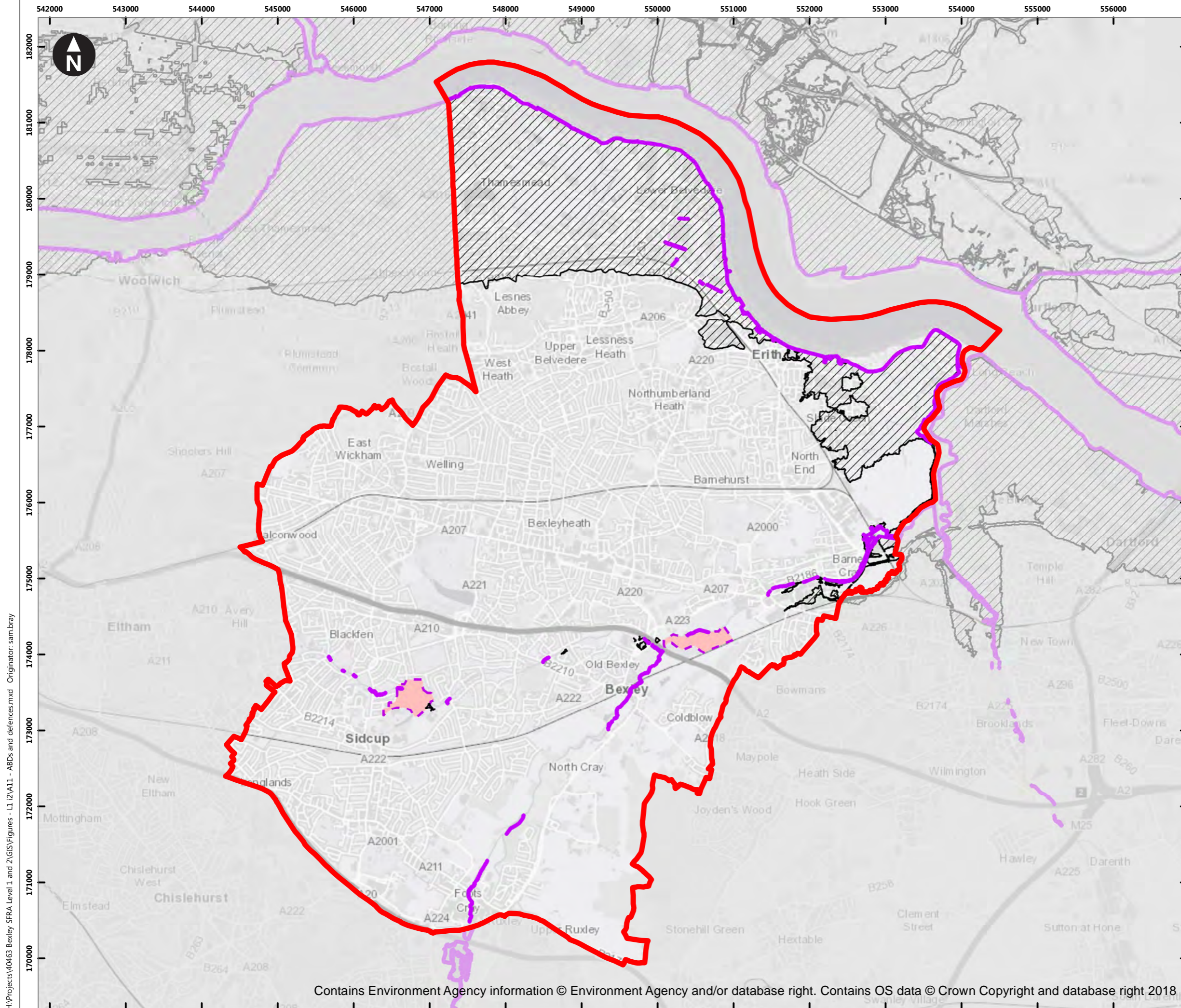
London Borough of Bexley
Level 1 SFRA

Figure A10
Surface Water Flood Extents

November 2019

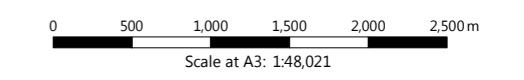


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- Key
- London Borough of Bexley Boundary
 - Flood defences (SoP over 1 in 100 year AEP)
 - Areas Benefiting from Flood Defences
 - Flood Storage Areas

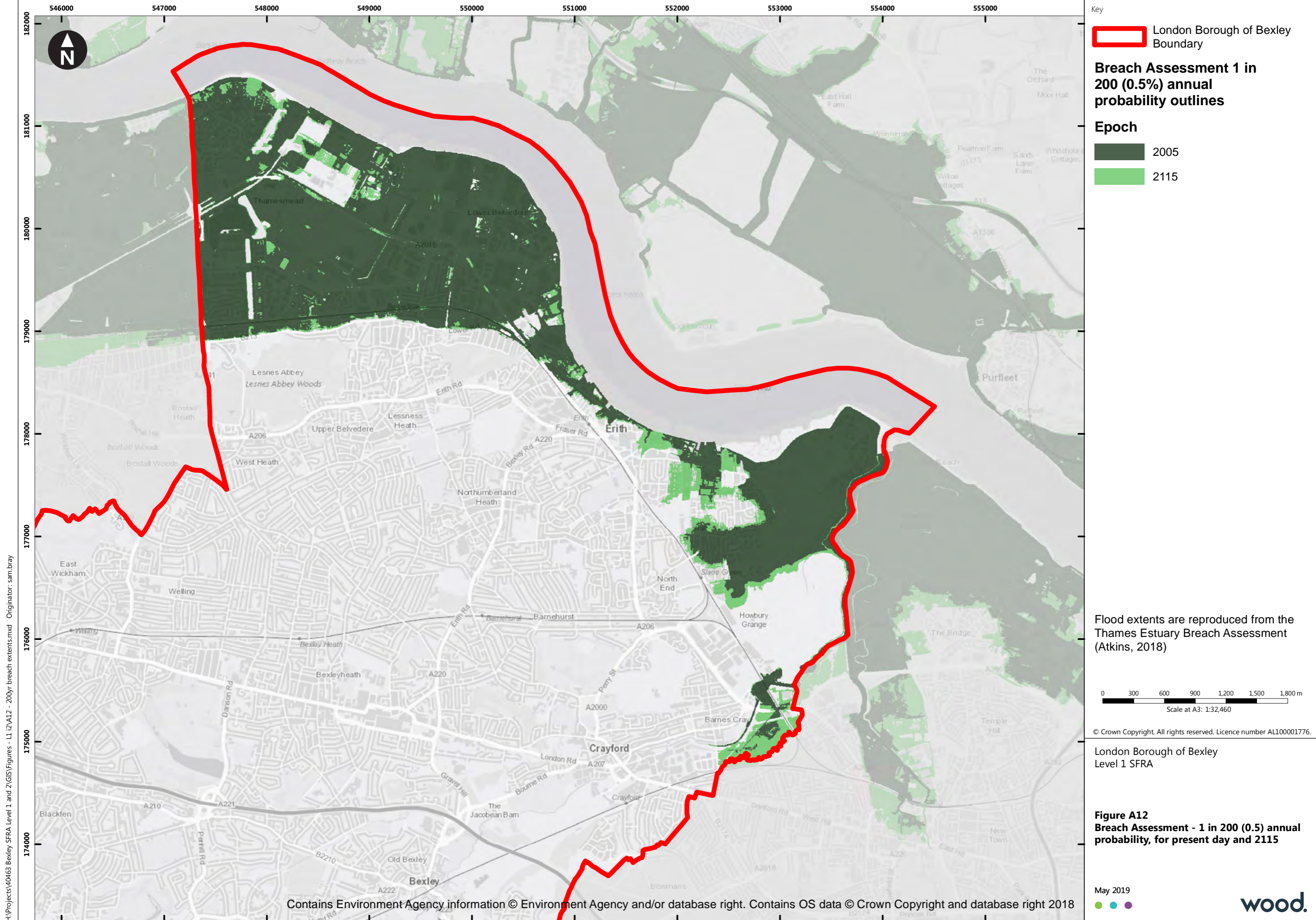
SoP - Standard of Protection, this refers to the design standard of the defence, i.e. providing protection against up to the 1 in 100 year AEP event.



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London Borough of Bexley
Level 1 SFRA

Figure A11
Areas Benefitting from Flood Defences, and Flood Defence Locations



Key

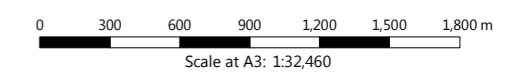
London Borough of Bexley Boundary

Breach Assessment 1 in 200 (0.5%) annual probability outlines

Epoch

- 2005
- 2115

Flood extents are reproduced from the Thames Estuary Breach Assessment (Atkins, 2018)



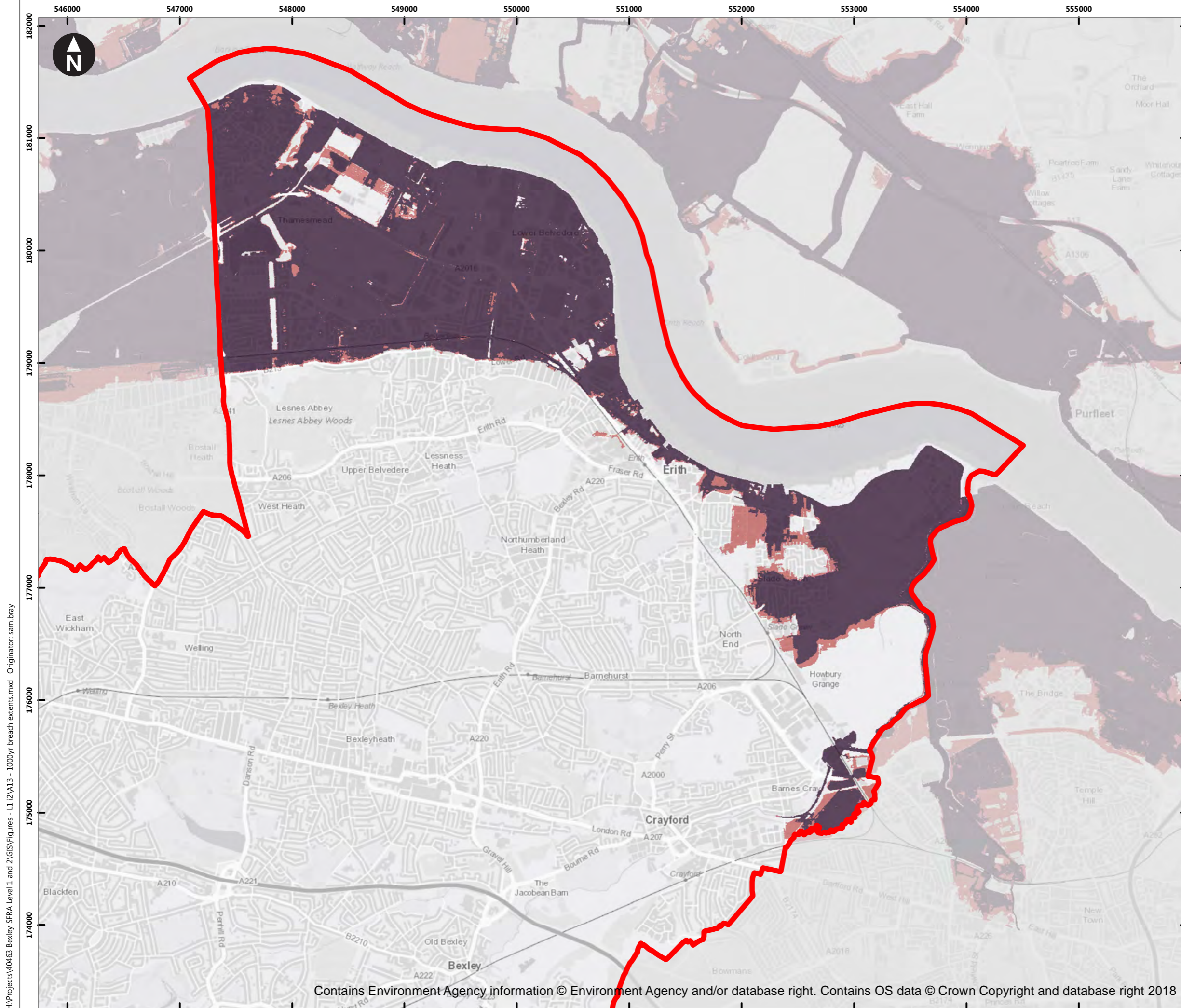
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London Borough of Bexley
Level 1 SFRA

Figure A12
Breach Assessment - 1 in 200 (0.5) annual probability, for present day and 2115

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Key

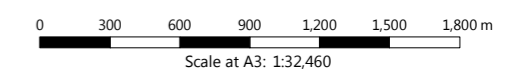
London Borough of Bexley Boundary

Breach Assessment 1 in 1000 (0.1%) annual probability outlines

Epoch

- 2005
- 2015

Flood extents are reproduced from the Thames Estuary Breach Assessment (Atkins, 2018)

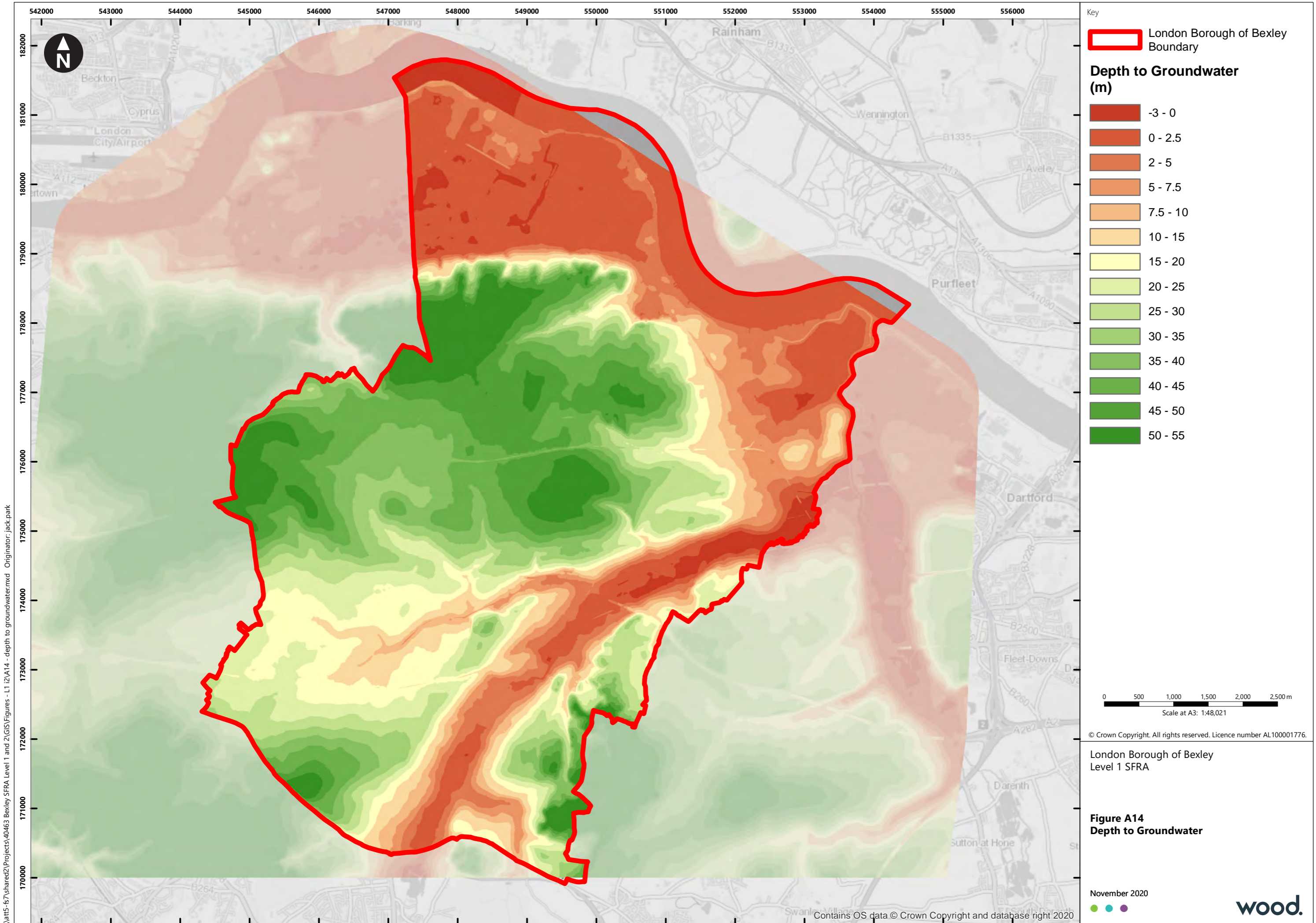


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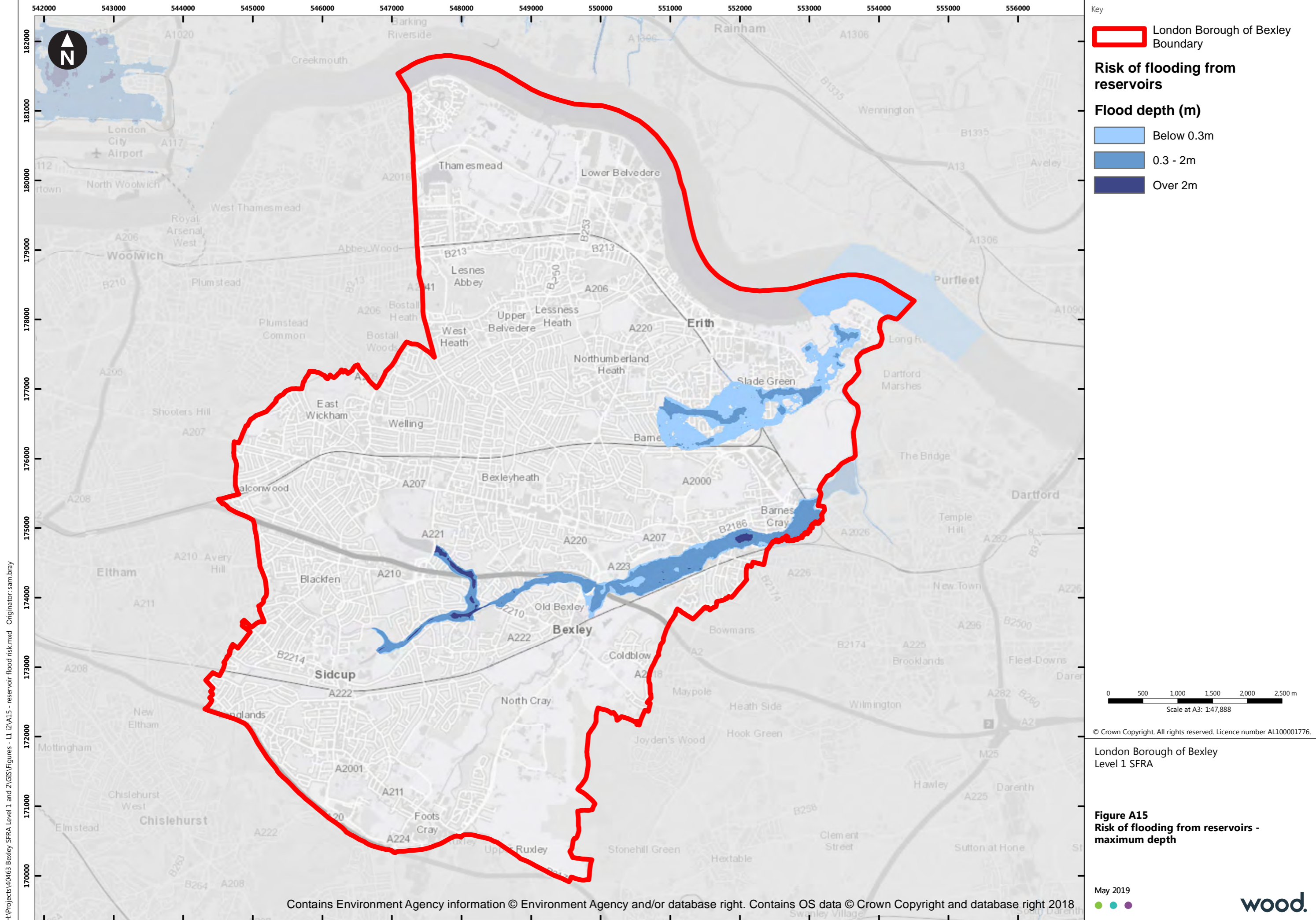
London Borough of Bexley Level 1 SFRA

Figure A13
Breach Assessment - 1 in 1000 (0.1%) annual probability, for present day and 2115

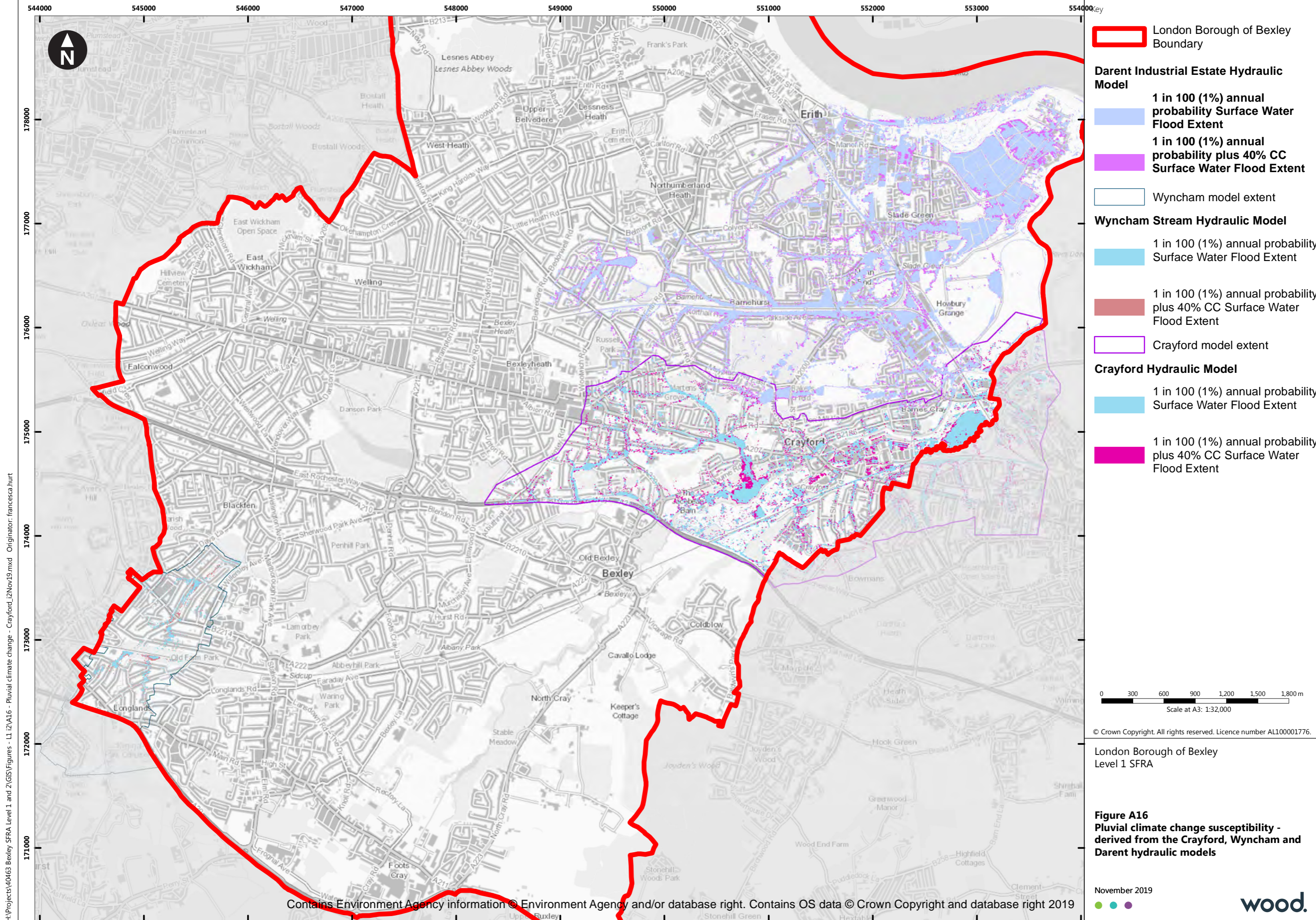
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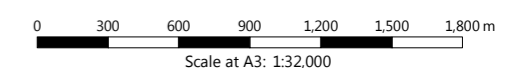
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- London Borough of Bexley Boundary**
- London Borough of Bexley Boundary
- Darent Industrial Estate Hydraulic Model**
- 1 in 100 (1%) annual probability Surface Water Flood Extent
 - 1 in 100 (1%) annual probability plus 40% CC Surface Water Flood Extent
- Wyncham Stream Hydraulic Model**
- Wyncham model extent
 - 1 in 100 (1%) annual probability Surface Water Flood Extent
 - 1 in 100 (1%) annual probability plus 40% CC Surface Water Flood Extent
- Crayford Hydraulic Model**
- Crayford model extent
 - 1 in 100 (1%) annual probability Surface Water Flood Extent
 - 1 in 100 (1%) annual probability plus 40% CC Surface Water Flood Extent

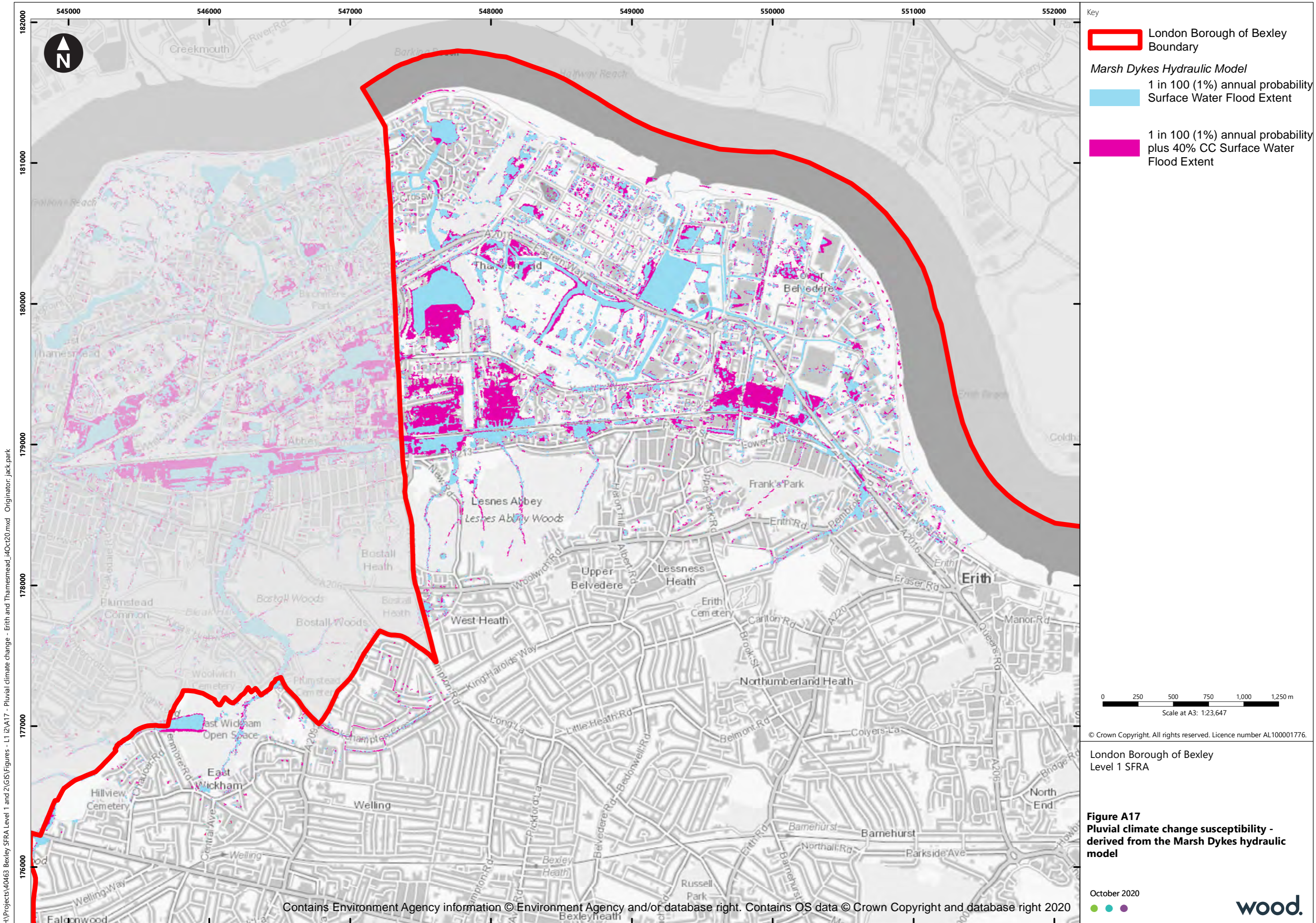


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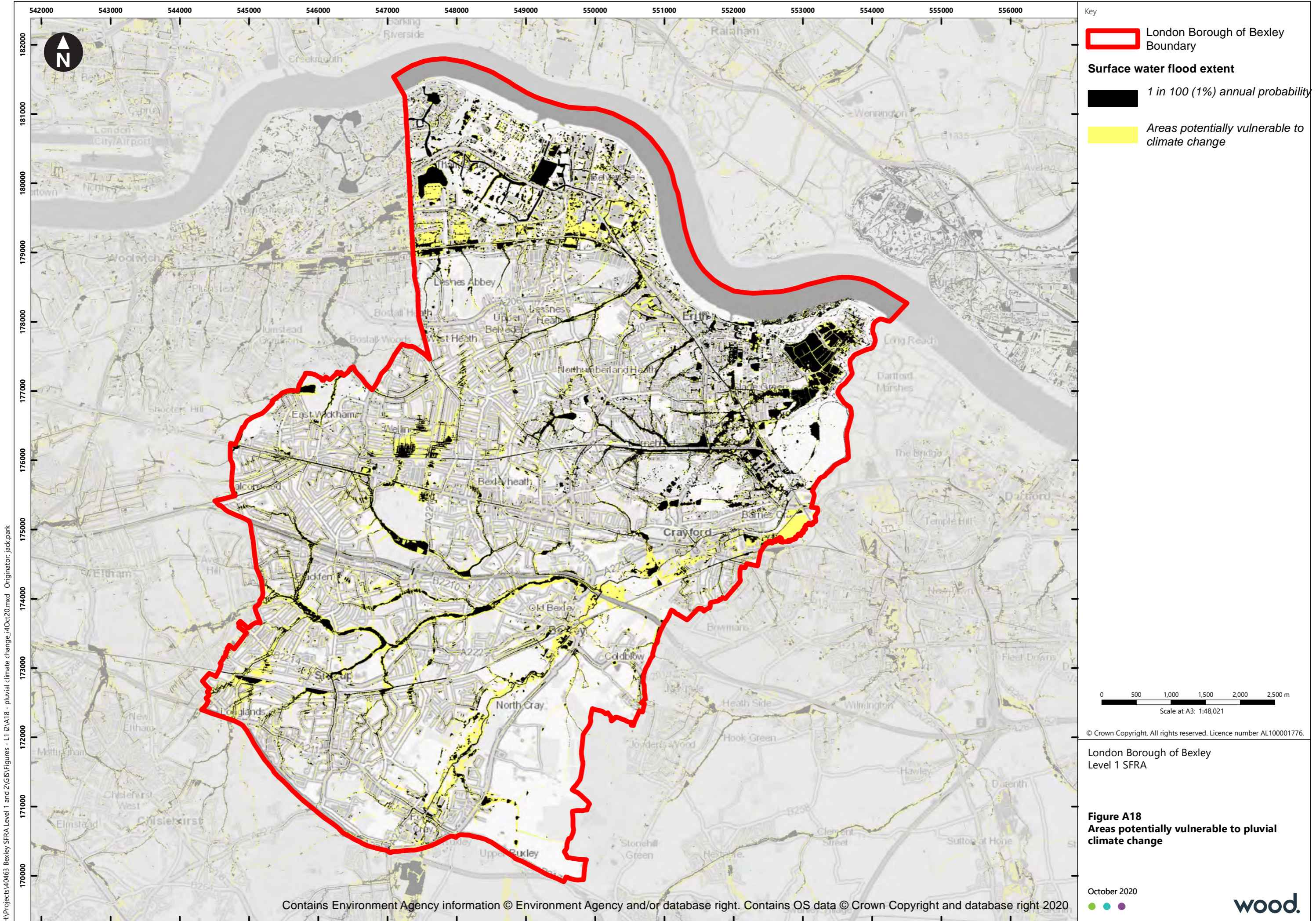
London Borough of Bexley
Level 1 SFRA

Figure A16
Pluvial climate change susceptibility -
derived from the Crayford, Wyncham and
Darent hydraulic models

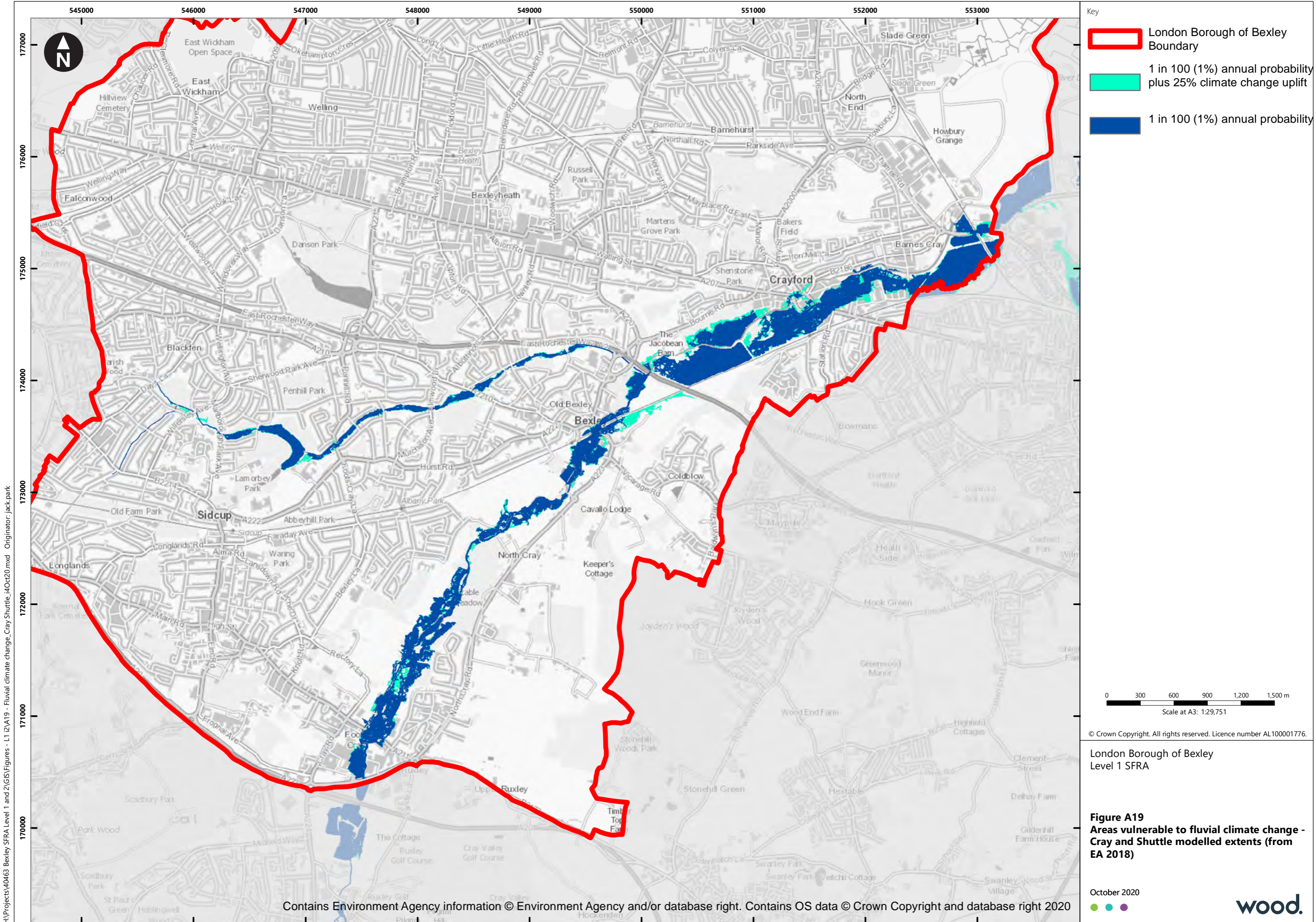
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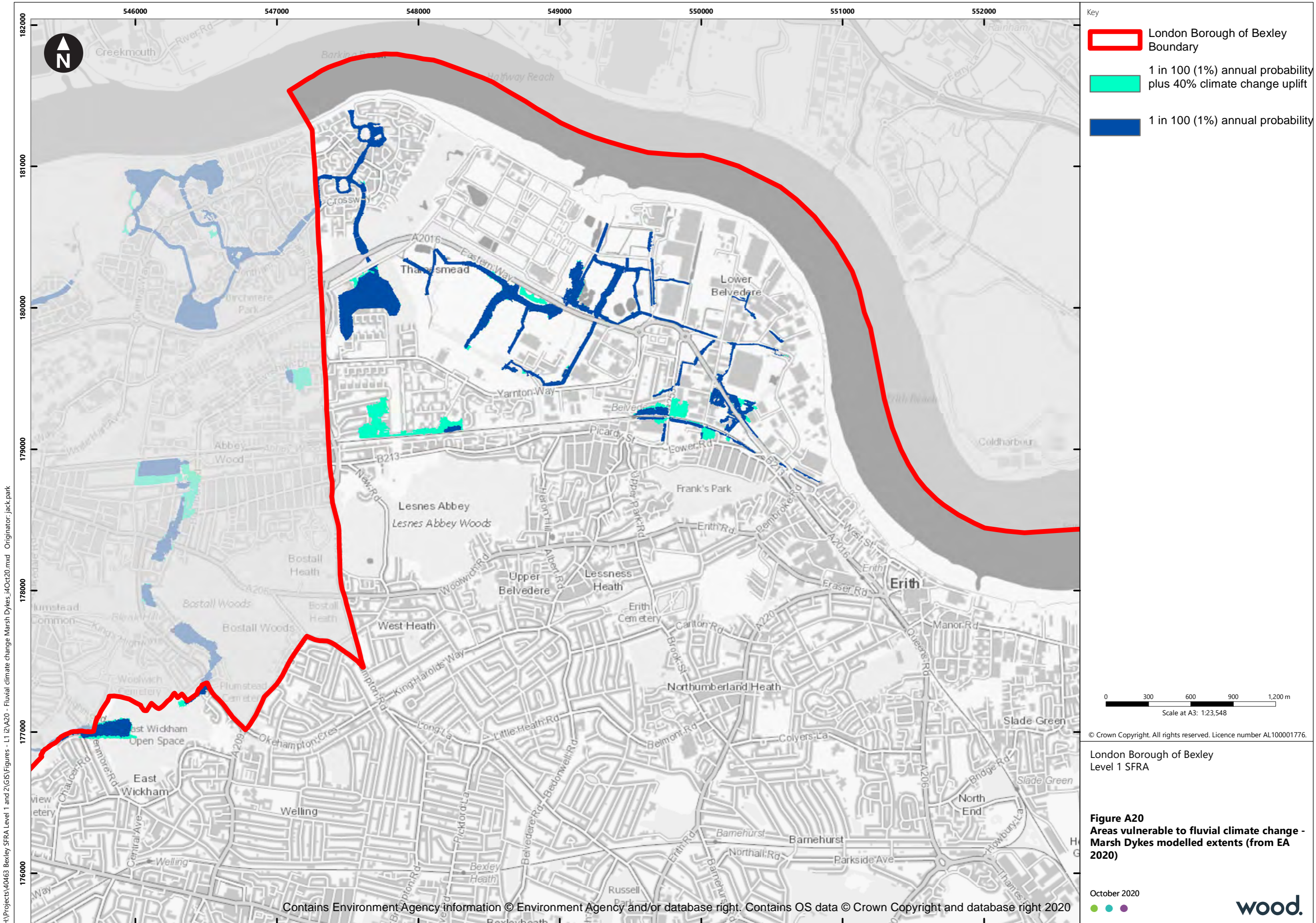
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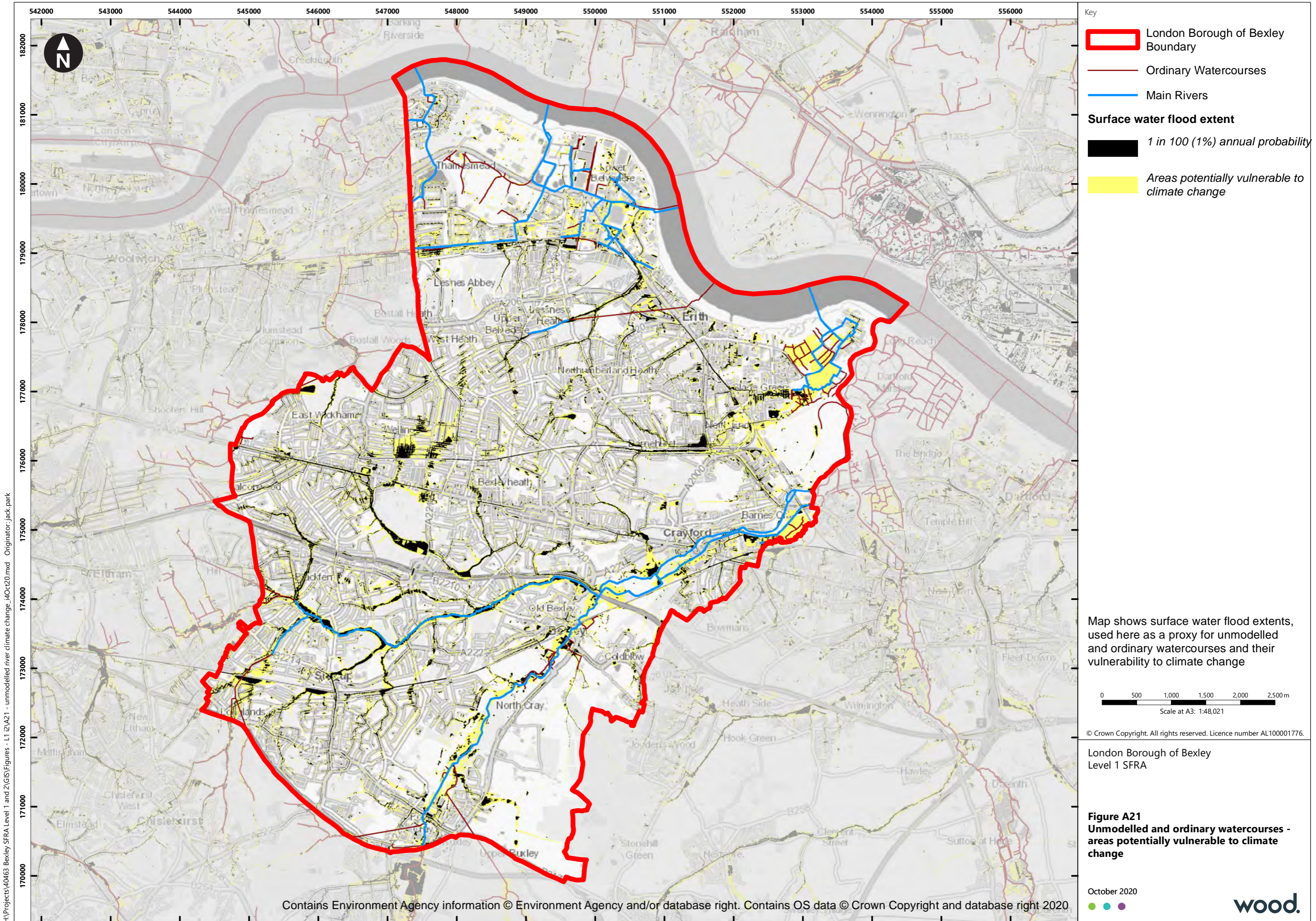
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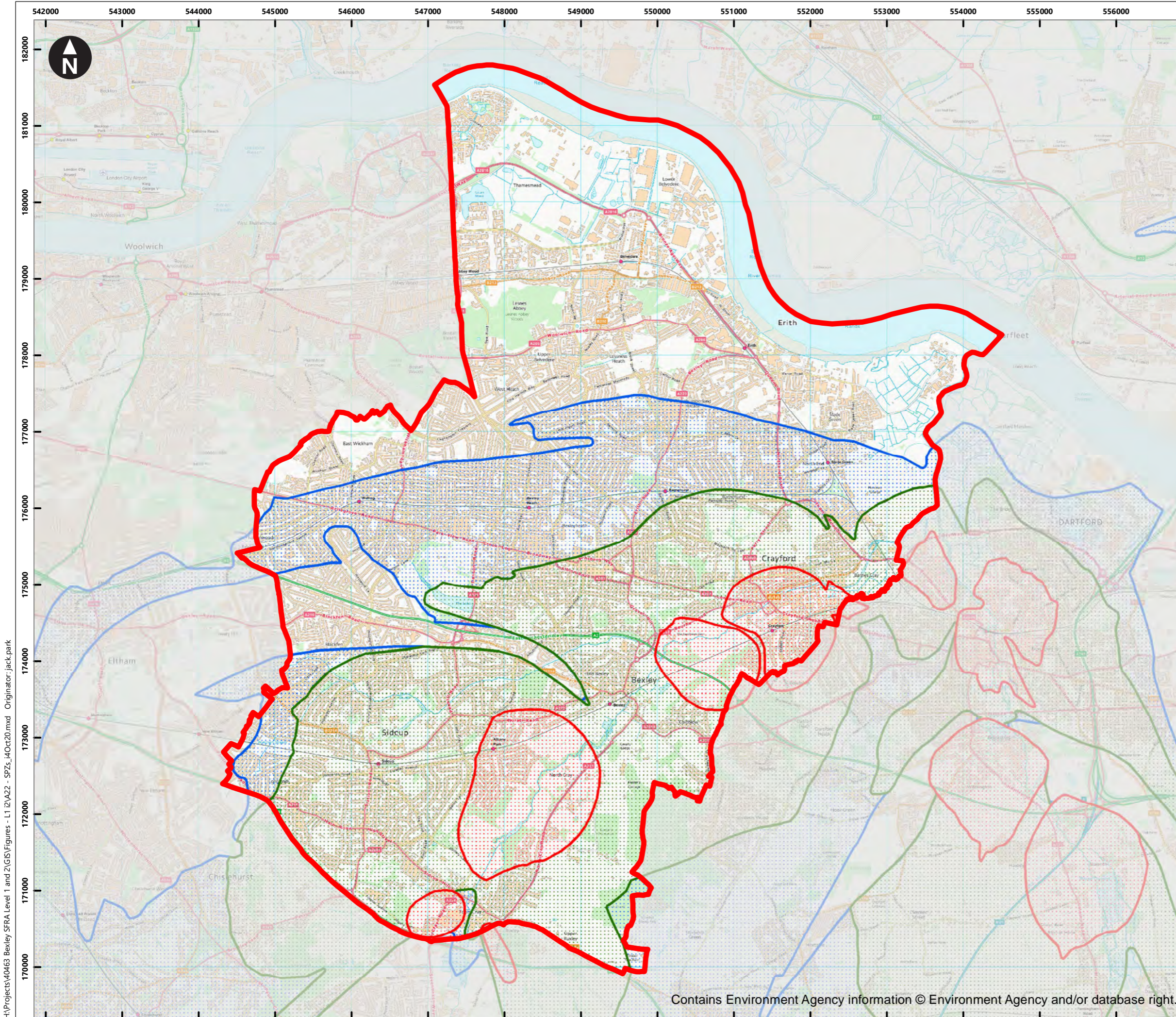
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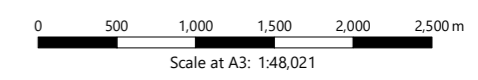


Key

- London Borough of Bexley Boundary

Source Protection Zones

- Zone I - Inner Protection Zone
- Zone II - Outer Protection Zone
- Zone III - Total Catchment



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London Borough of Bexley
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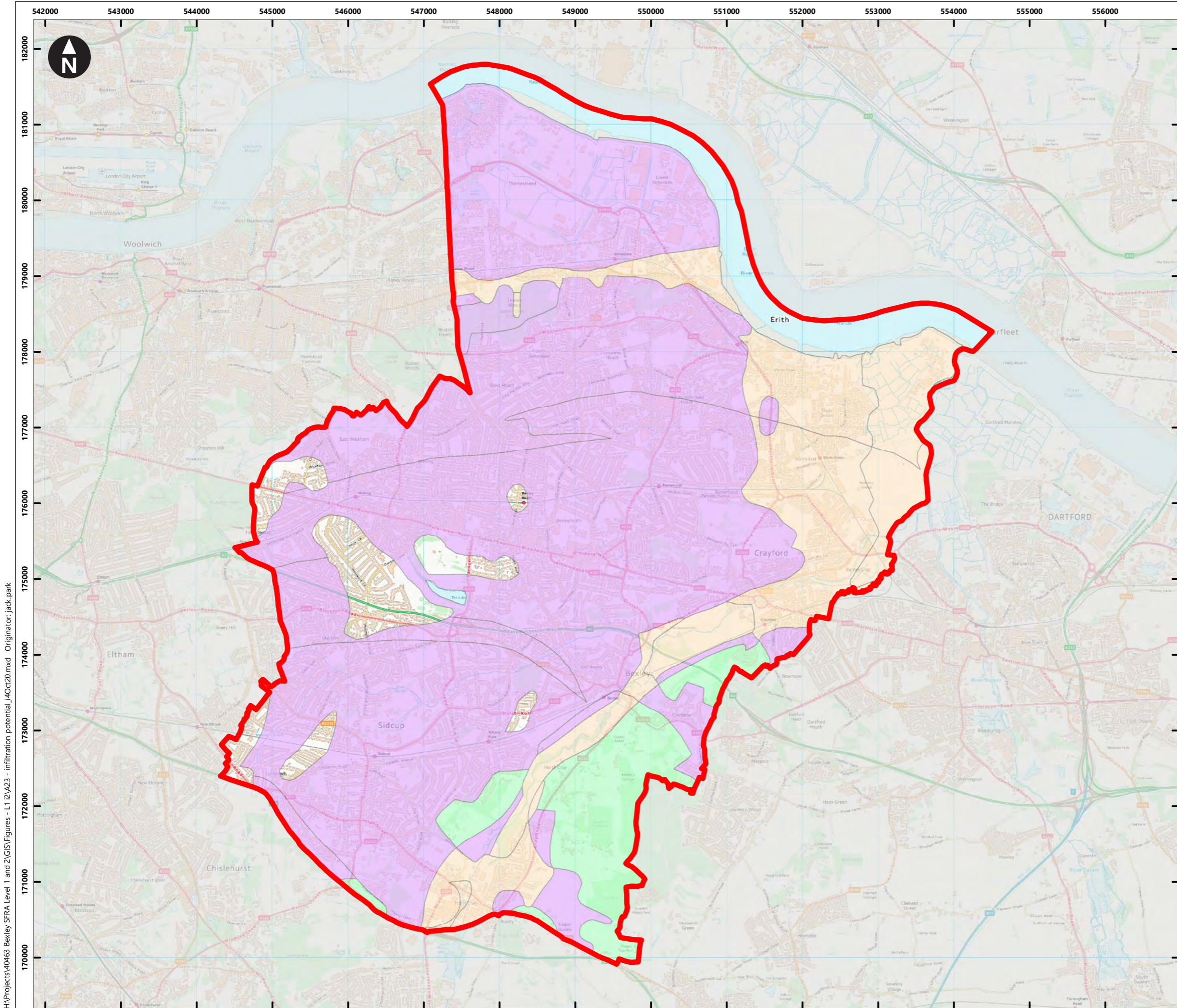
Figure A22
Source Protection Zones

October 2020



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Key

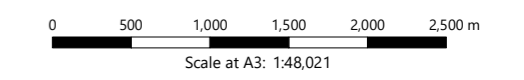
London Borough of Bexley Boundary

Infiltration Potential

High

Med

Low

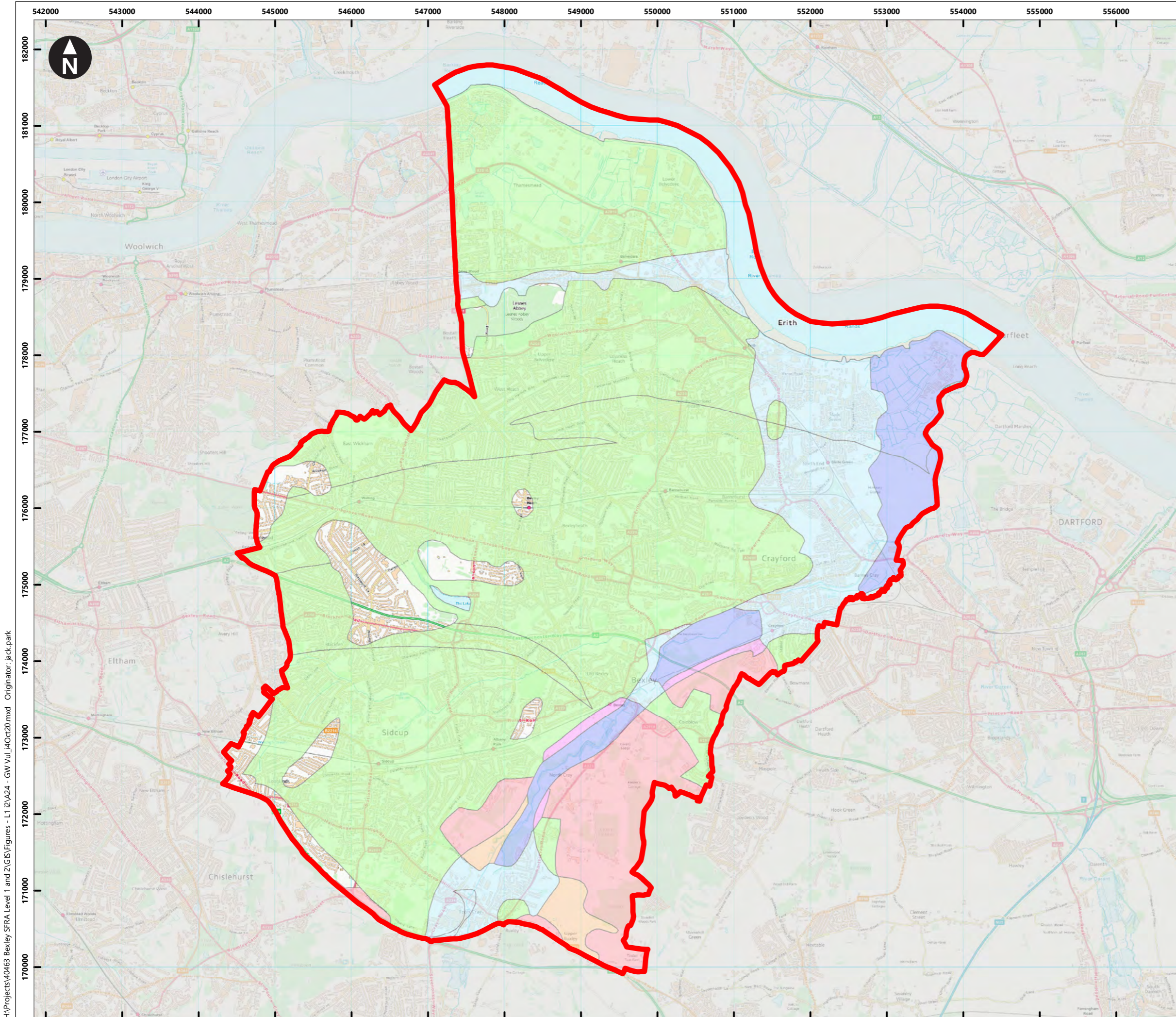



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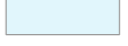


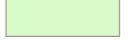

Figure A23
Infiltration potential

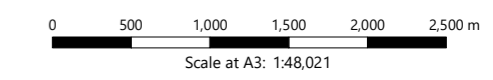
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Key
 London Borough of Bexley Boundary

Groundwater Vulnerability Classification

-  MAJOR_H1
-  MAJOR_HU
-  MAJOR_I1
-  MINOR_H1
-  MINOR_HU
-  MINOR_I1



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London Borough of Bexley
 Level 1 SFRA

Figure A24
Groundwater Vulnerability Classifications

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