

London Borough of Bexley

Strategic Flood Risk Assessment – Level 2

Appendix D – Level 2 Mapping – Crayford Sustainable Growth Area

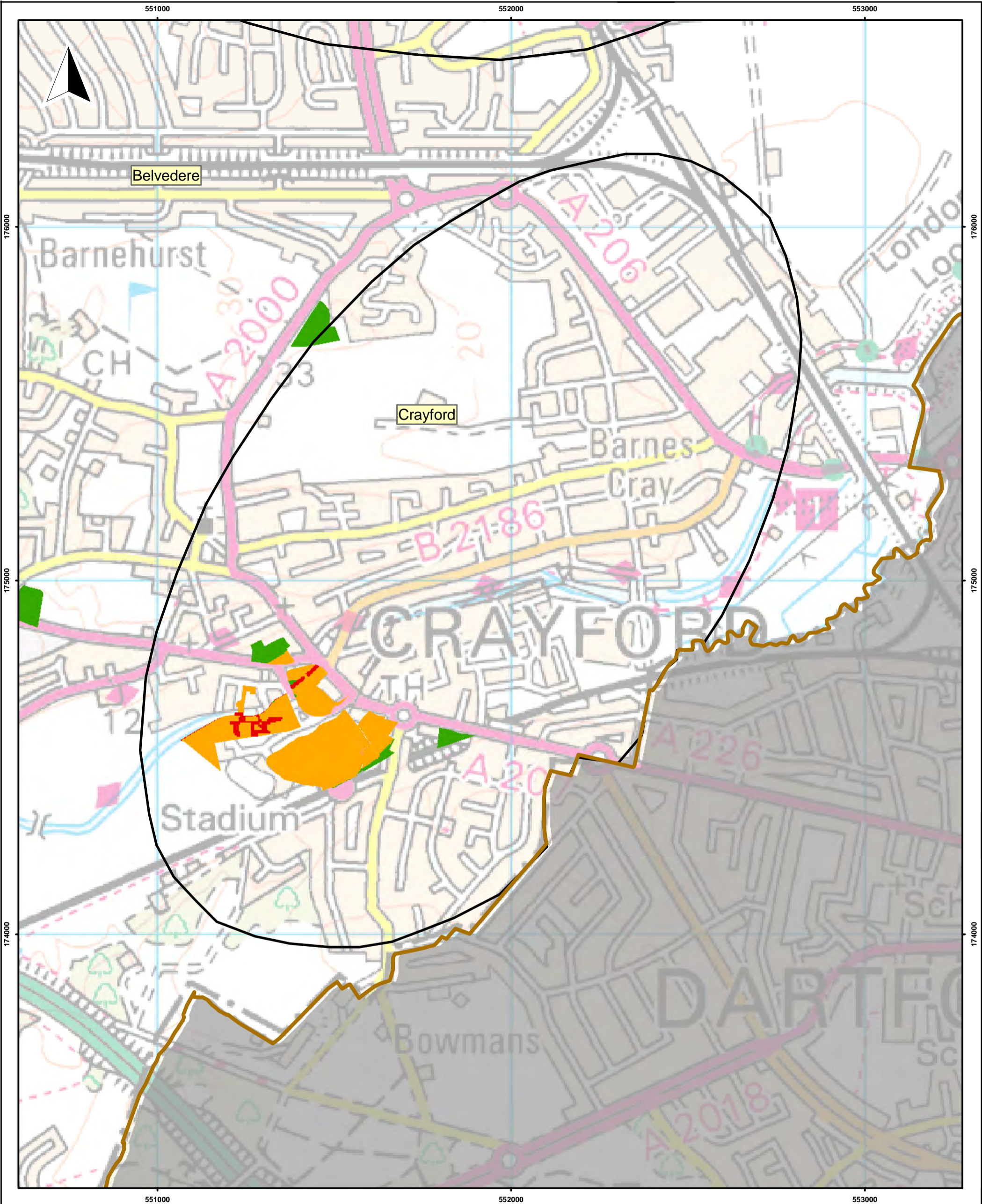
2 June 2011



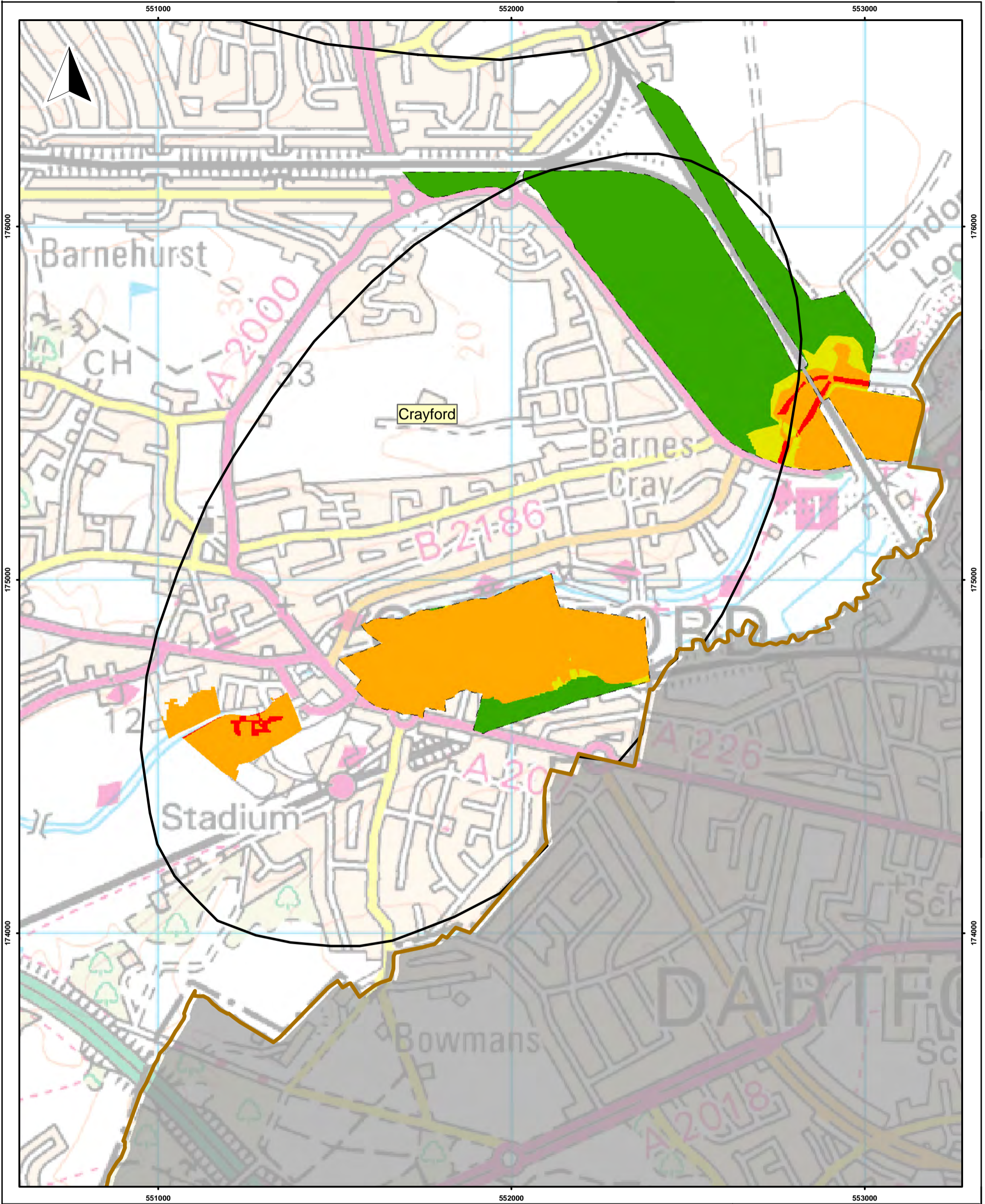
Please note that the modelling on which these maps are based may have been superseded.

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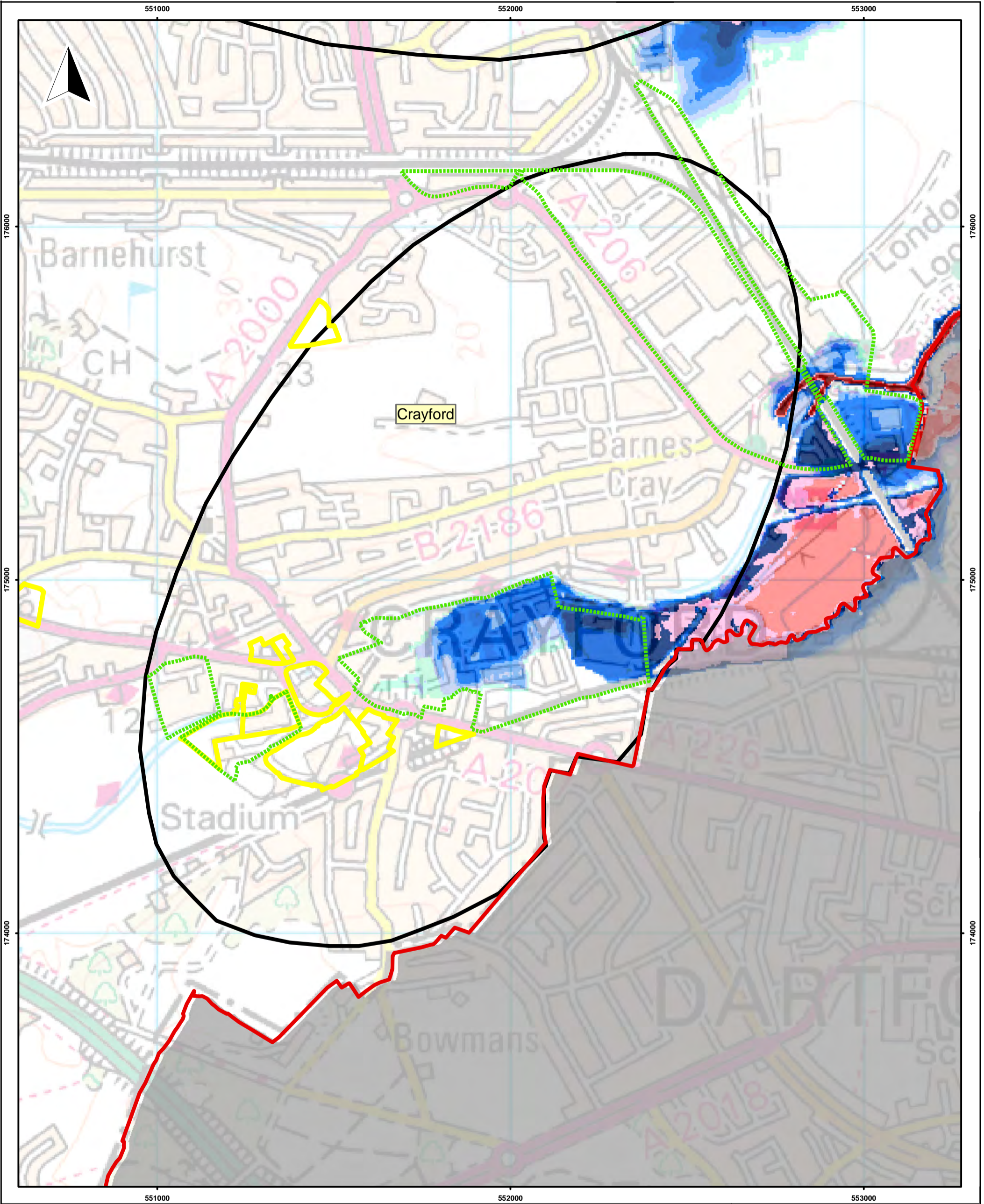
Creating the environment for business



Key: SHLAA Sites - With Flood Zone Classification <div><div>Flood Zone 3</div><div>Flood Zone 2</div><div>Flood Zone 1 (Based on Environment Agency Flood Zones 2008)</div></div> ISIS-TuFLOW modelling (Crayford Town Centre SFRA 2007) <div>Modelled 1 in 20 year (fluvial+CC) with defences</div>	<div><div>London Borough of Bexley Boundary</div><div>LDF Growth Areas</div></div> <div>0150300450600 Meters Scale: 1:10000 @ A3</div>	Bexley SFRA Figure D1 Crayford Delineation of Flood Risk on SHLAA Sites <div>July 2010 23736-A048.mxd RAMPJ</div> <div>Entec</div>
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Key: Employment Sites - With Flood Zone Classification <div><div></div> Flood Zone 3</div> <div><div></div> Flood Zone 2</div> <div><div></div> Flood Zone 1 (Based on Environment Agency Flood Zones 2008)</div> <div>ISIS-TuFLOW modelling (Crayford Town Centre SFRA 2007) <div><div></div> Modelled 1 in 20 year (fluvial+CC) with defences</div></div> <div><div></div> Indicates Primary Sites</div>	<div><div></div> London Borough of Bexley Boundary</div> <div><div></div> LDF Growth Areas</div>	Bexley SFRA Figure D2 Crayford Delineation of Flood Risk on Employment Sites
<div>H:\Projects\HM-255\23000-Projects\23736 - Bexley SFRA\Data\GIS\ESRI\Level2_projects</div> <div>Based upon the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright. London Borough of Bexley AL100017693</div>		<div>0 150 300 450 600 Meters</div> <div>Scale: 1:10000 @ A3</div> <div>July 2010 23736-A049.mxd RAMPJ</div> <div>Entec</div>



Key:

- London Borough of Bexley Boundary
- LDF Growth Areas
- SHLAA Sites
- Employment Sites

Maximum Flood Depth Tidal (m)

0 - 0.25	2.01 - 2.5
0.25 - 0.5	2.51 - 3
0.50 - 0.75	3.01 - 3.5
0.75 - 1	3.51 - 4
1.00 - 1.5	4.01 - 5
1.51 - 2	5.01 - 6

0 130 260 390 520 Meters

Scale: 1:10000 @ A3

Bexley SFRA

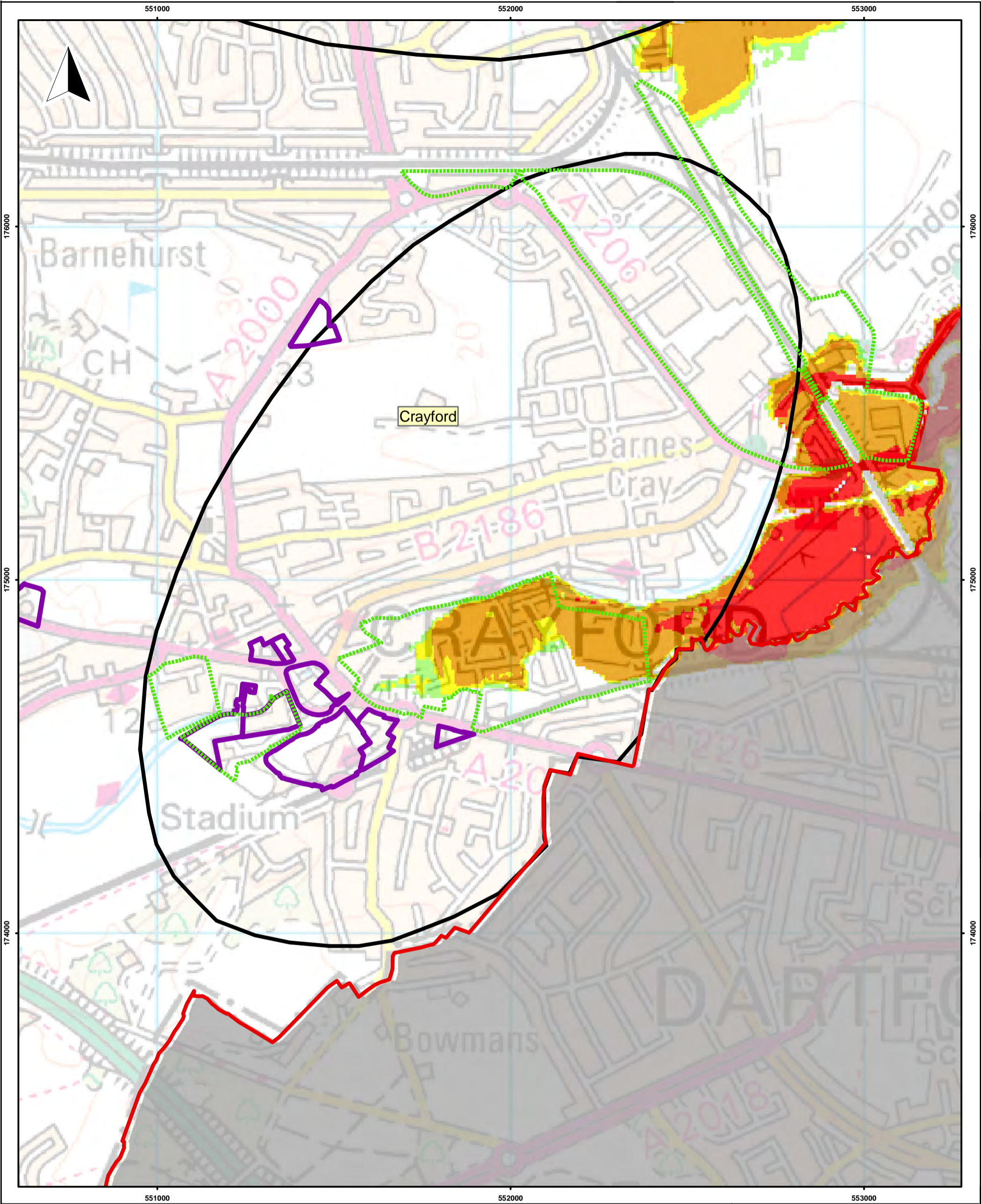
Figure D3
Crayford - Maximum
Predicted Flood Depths From
all Breaches in the 1 in 200
Year Tidal Event Plus CC

July 2010
23736-A050.mxd RAMPJ

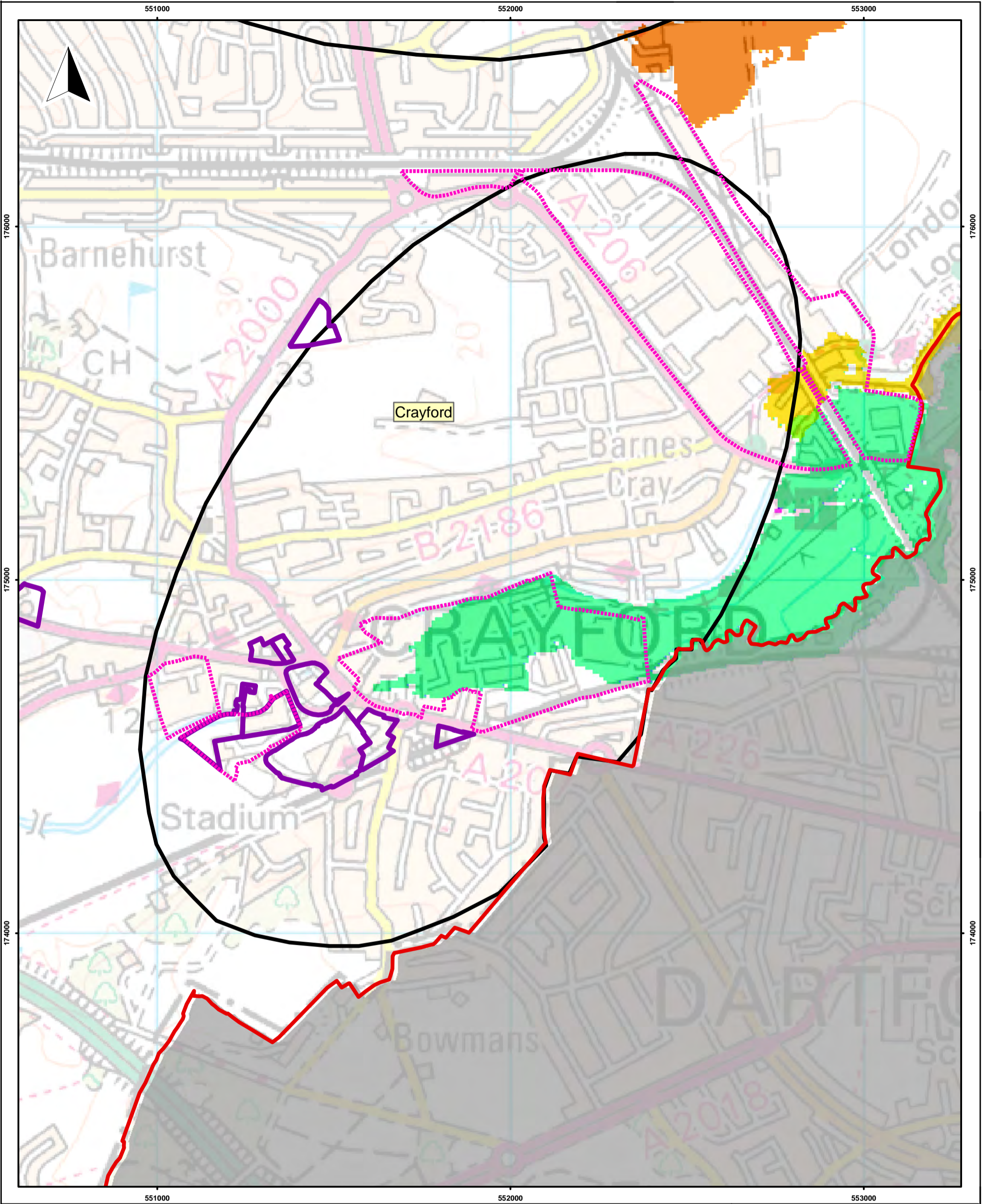
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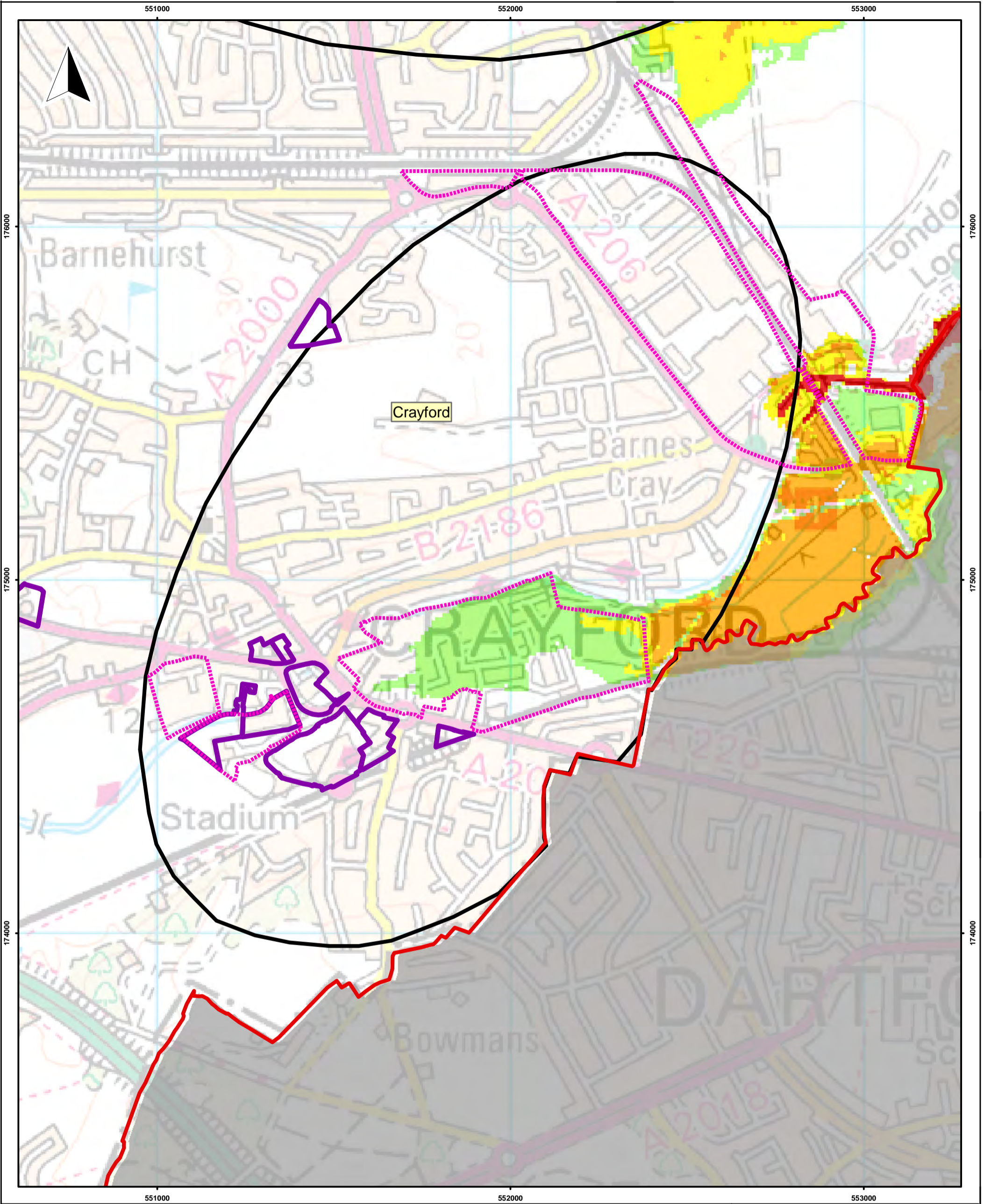
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Key: London Borough of Bexley Boundary LDF Growth Areas SHLAA Sites Employment Sites	Flood Hazard (FD2321/TR2 - Table 3.2) < 0.75 Caution 0.75 - 1.25 'Dangerous for Some' 1.25 - 2.5 'Dangerous for Most' > 2.5 'Dangerous for All' Zone of Potential Rapid Inundation See Section 2.2.2 of the Level 2 SFRA Report for details of this zone	Bexley SFRA Figure D4 Crayford - Maximum Predicted Flood Hazard From all Breaches in the 1 in 200 Year Tidal Event Plus CC July 2010 23736-A051.mxd RAMPJ
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Key: <ul style="list-style-type: none">London Borough of Bexley BoundaryLDF Growth AreasSHLAA SitesEmployment Sites	Maximum Water Surface Elevation From all Breaches (1 in 200yr +CC) mAOD <table><tr><td>0.01 - 3.70</td><td>5.31 - 5.79</td></tr><tr><td>3.71 - 4.10</td><td>5.80 - 6.21</td></tr><tr><td>4.11 - 4.40</td><td>6.22 - 6.75</td></tr><tr><td>4.41 - 4.89</td><td></td></tr><tr><td>4.90 - 5.30</td><td></td></tr></table>	0.01 - 3.70	5.31 - 5.79	3.71 - 4.10	5.80 - 6.21	4.11 - 4.40	6.22 - 6.75	4.41 - 4.89		4.90 - 5.30		Bexley SFRA Figure D5 Crayford - Maximum Predicted Flood Water Level From all Breaches in the 1 in 200 Year Tidal Event Plus CC
0.01 - 3.70	5.31 - 5.79											
3.71 - 4.10	5.80 - 6.21											
4.11 - 4.40	6.22 - 6.75											
4.41 - 4.89												
4.90 - 5.30												
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Key:

	London Borough of Bexley Boundary
	LDF Growth Areas
	SHLAA Sites
	Employment Sites

Likely Rate of Flooding Onset (Hours)

	Less than 3 hours
	Less than 6 hours
	Less than 15 hours
	Area converted at maximum extent

0 130 260 390 520 Meters

Scale: 1:10000 @ A3

Bexley SFRA

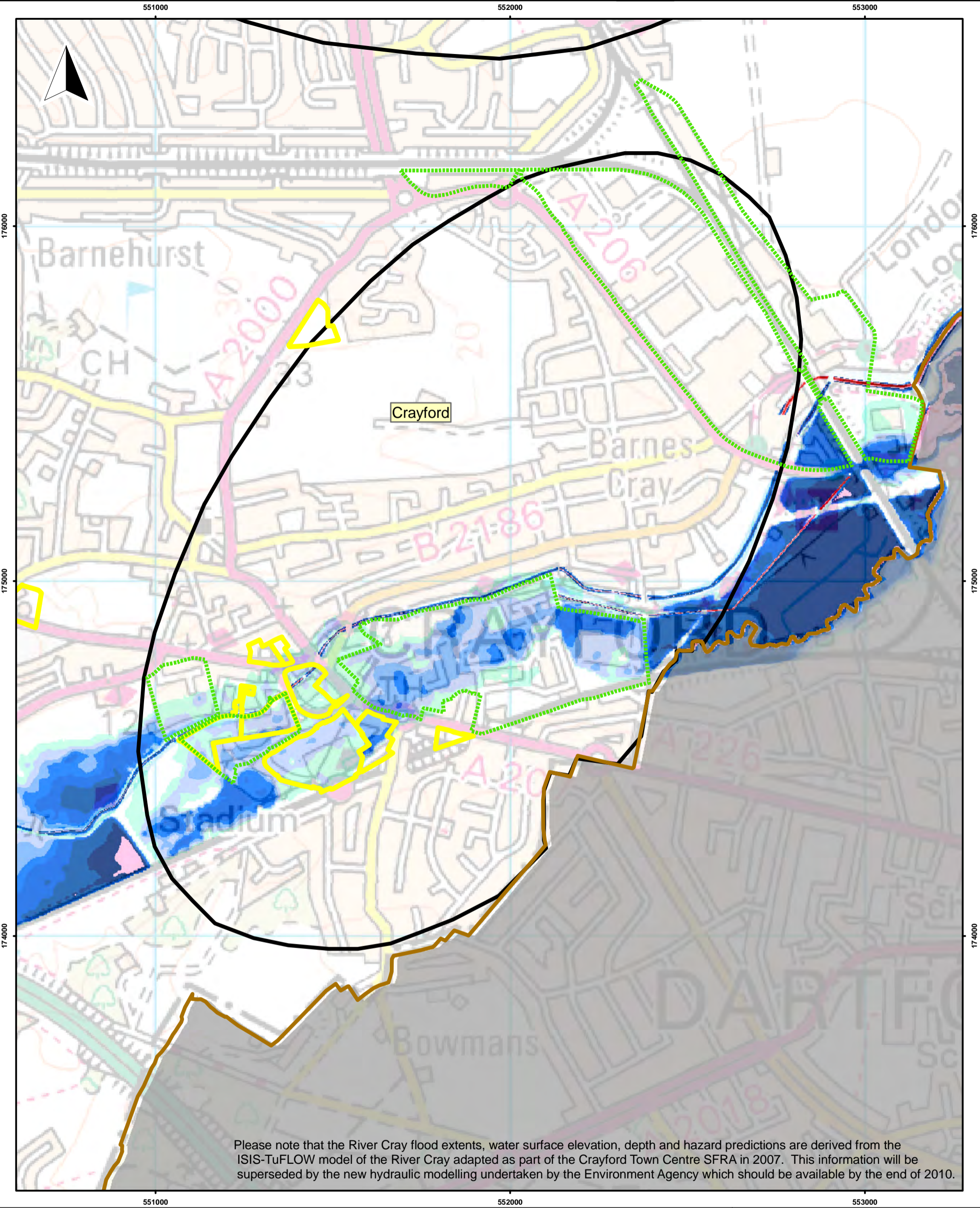
Figure D6
Crayford - Combined Likely Rate of Inundation from all Simulated Breaches (1 in 200yr Plus CC)

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London Borough of Bexley Boundary

LDF Growth Areas

SHLAA Sites

Employment Sites

Maximum Flood Depth Fluvial (m)

0 - 0.25

0.25 - 0.5

0.50 - 0.75

0.75 - 1

1.00 - 1.5

1.51 - 2

2.01 - 2.5

2.51 - 3

3.01 - 3.5

3.51 - 4

4.01 - 5

5.01 - 6

0130260390520

Meters

Scale: 1:10000 @ A3

Bexley SFRA

Figure D7

Crayford - Maximum Depth

in the 1 in 100 Year Fluvial Event

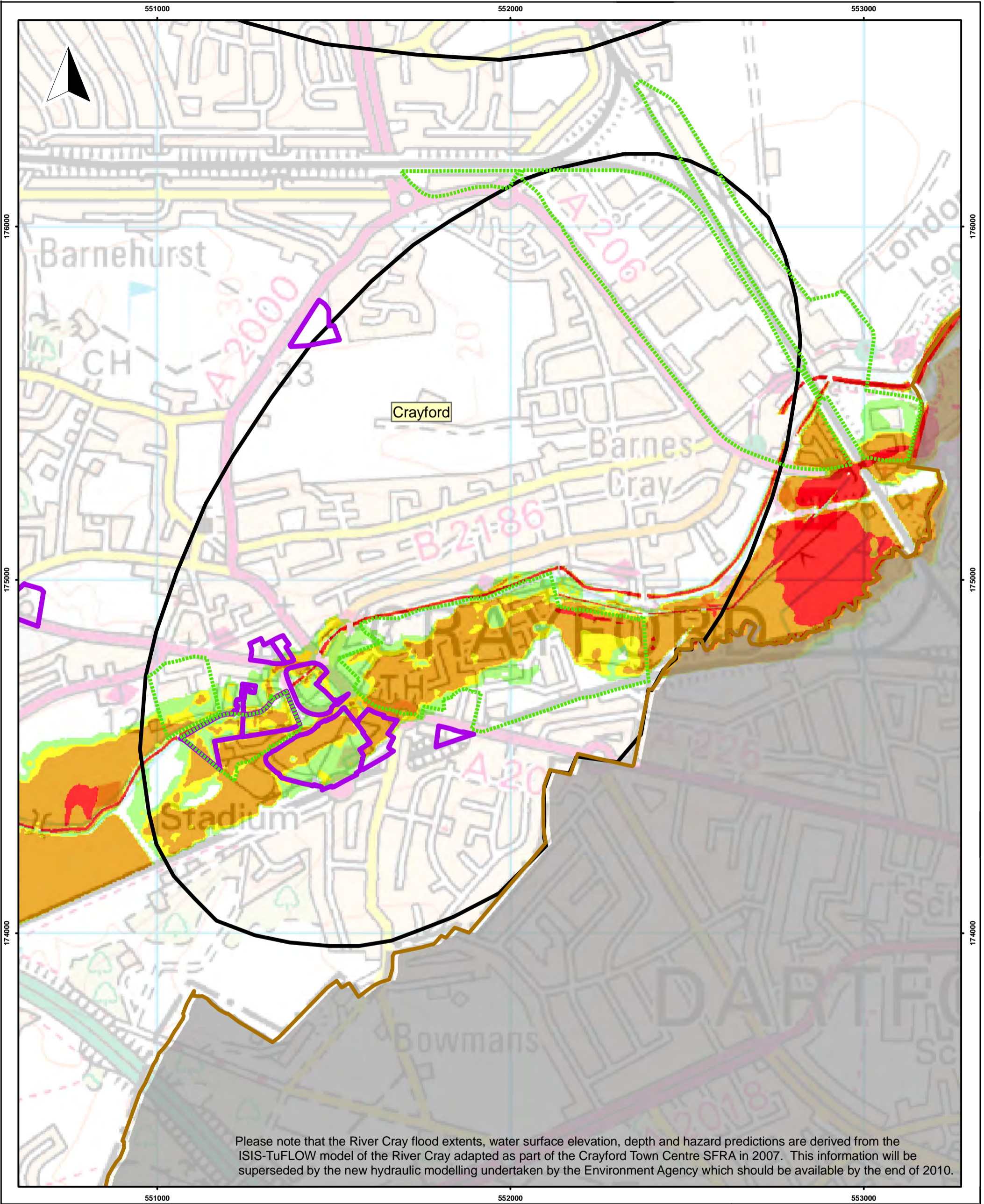
River Darent (Plus Climate Change)

July 2010

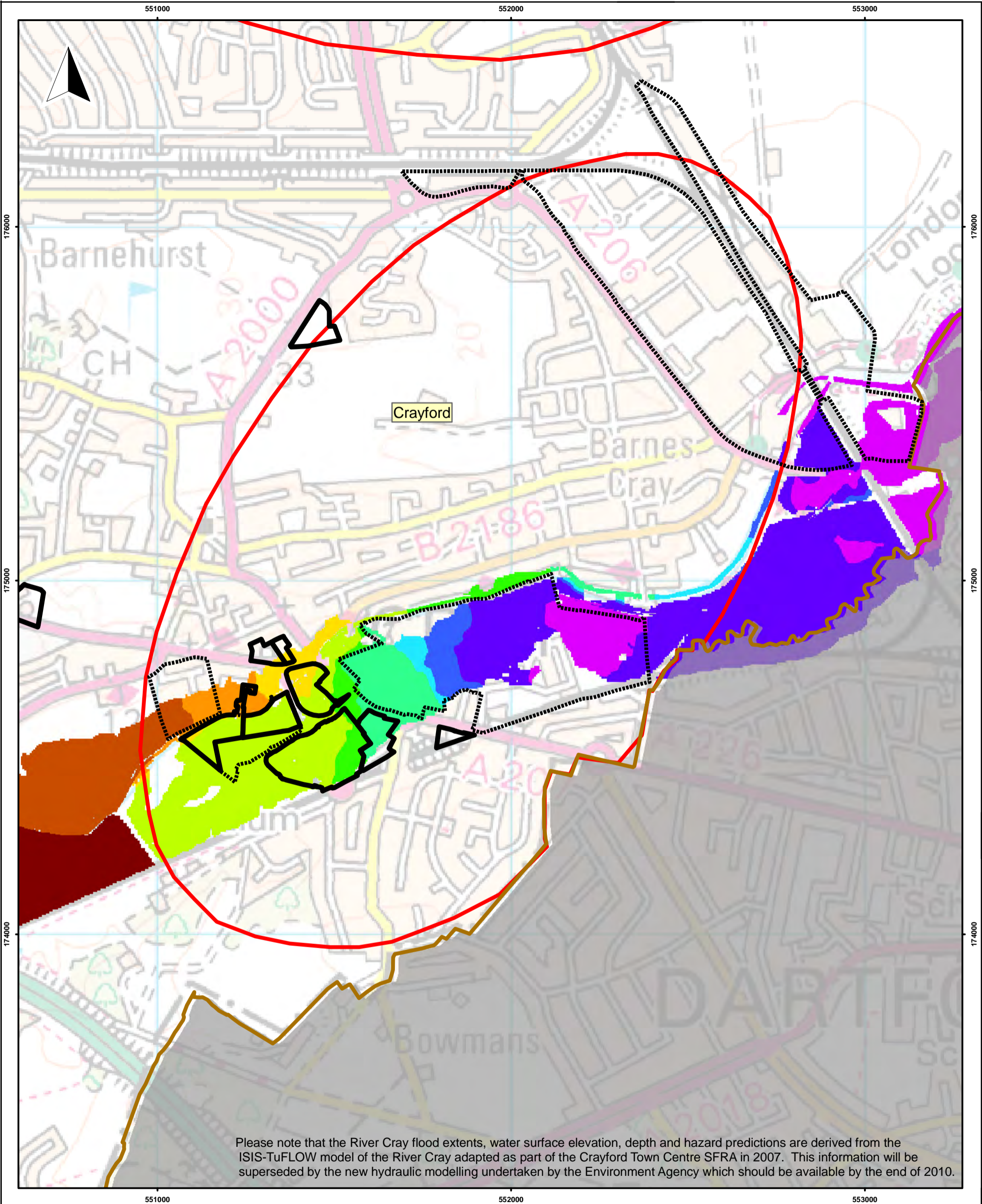
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Key:		Flood Hazard (FD2321/TR2 - Table 3.2)		Bexley SFRA
	London Borough of Bexley Boundary		< 0.75 Caution	
	LDF Growth Areas		0.75 - 1.25 'Dangerous for Some'	
	SHLAA Sites		1.25 - 2.5 'Dangerous for Most'	
	Employment Sites		> 2.5 'Dangerous for All'	
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Key:

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- Employment Sites

**Maximum Water Surface Elevation (mAOD)
1 in 100yr +CC Fluvial Event**

0 - 3.5	5.501 - 6	8.001 - 8.5
3.501 - 4	6.001 - 6.5	8.501 - >9
4.001 - 4.5	6.501 - 7	
4.501 - 5	7.001 - 7.5	
5.001 - 5.5	7.501 - 8	

0 130 260 390 520 Meters

Scale: 1:10000 @ A3

Bexley SFRA

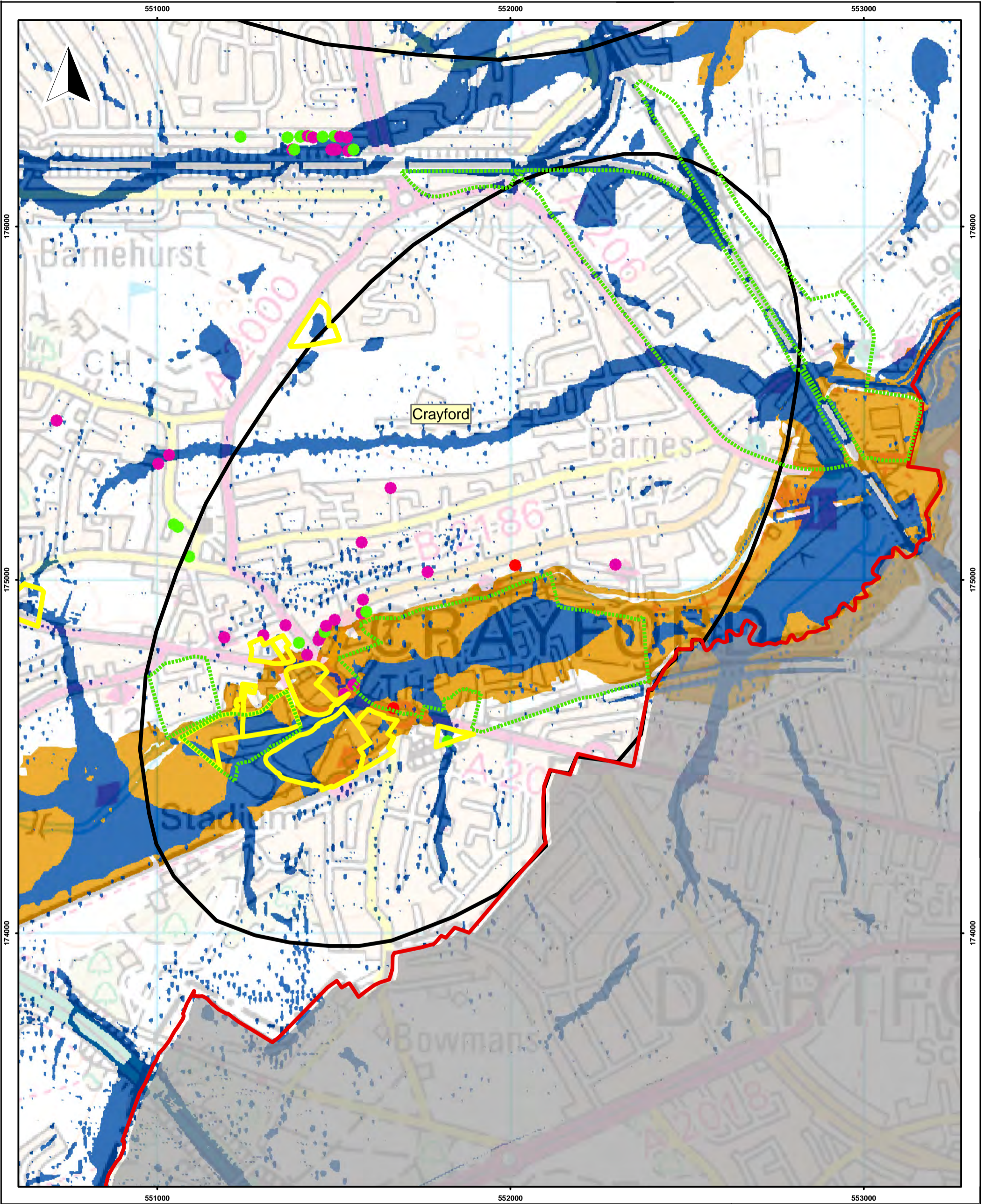
Figure D9
Crayford - Maximum Water Level
in the 1 in 100 Year Fluvial Event
River Darent (Plus Climate Change)

July 2010
23736-A056.mxd RAMPJ

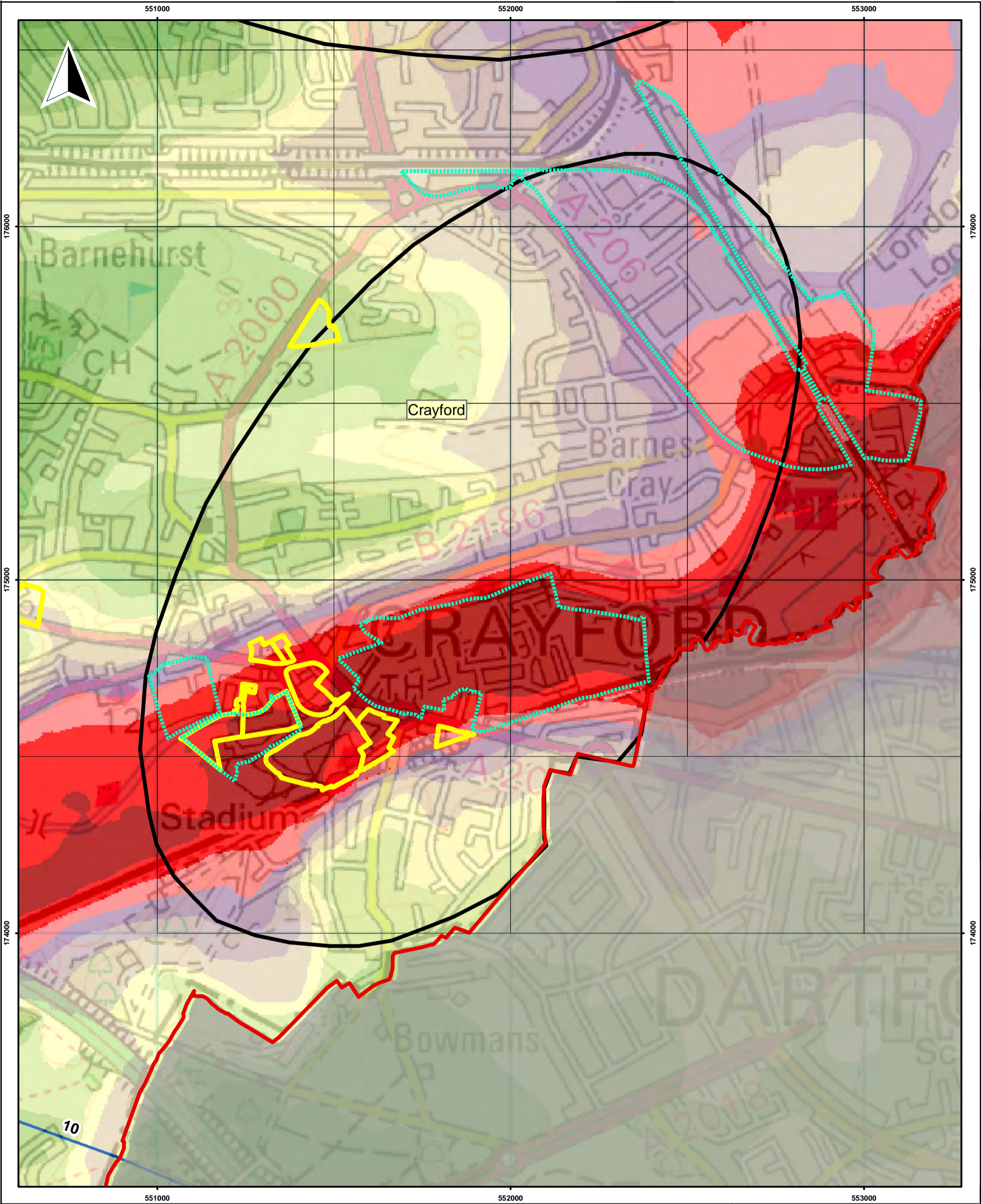
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Key: London Borough of Bexley Boundary LDF Growth Areas SHLAA Sites Employment Sites	Surface Water Flooding Locations Classified by Source Foul water Surcharge from sewers Surface water Unknown (Data Source = London Borough of Bexley)	Environment Agency Flood Zone 3 (September 2008) Potential Surface Water Flow Routes and Ponding Areas (1 in 100 year +CC rainfall event)	Bexley SFRA Figure D10 Crayford - Incidents of Surface Water Flooding and Modelled areas of Potential Surface Water Flow Routes and Ponding Areas
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Key:

- London Borough of Bexley Boundary
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- Employment Sites

Groundwater Head (m below ground)

-3 - 0	15.01 - 20	45.01 - 50
0 - 2.5	20.01 - 25	50.01 - 55
2.51 - 5	25.01 - 30	
5.01 - 7.5	30.01 - 35	
7.51 - 10	35.01 - 40	
10.01 - 15	40.01 - 45	

Depth to groundwater head was based upon ground elevations provided by 5m SAR topographic data

Groundwater Contours (m) below ground Supplied by EA

0 130 260 390 520 Meters

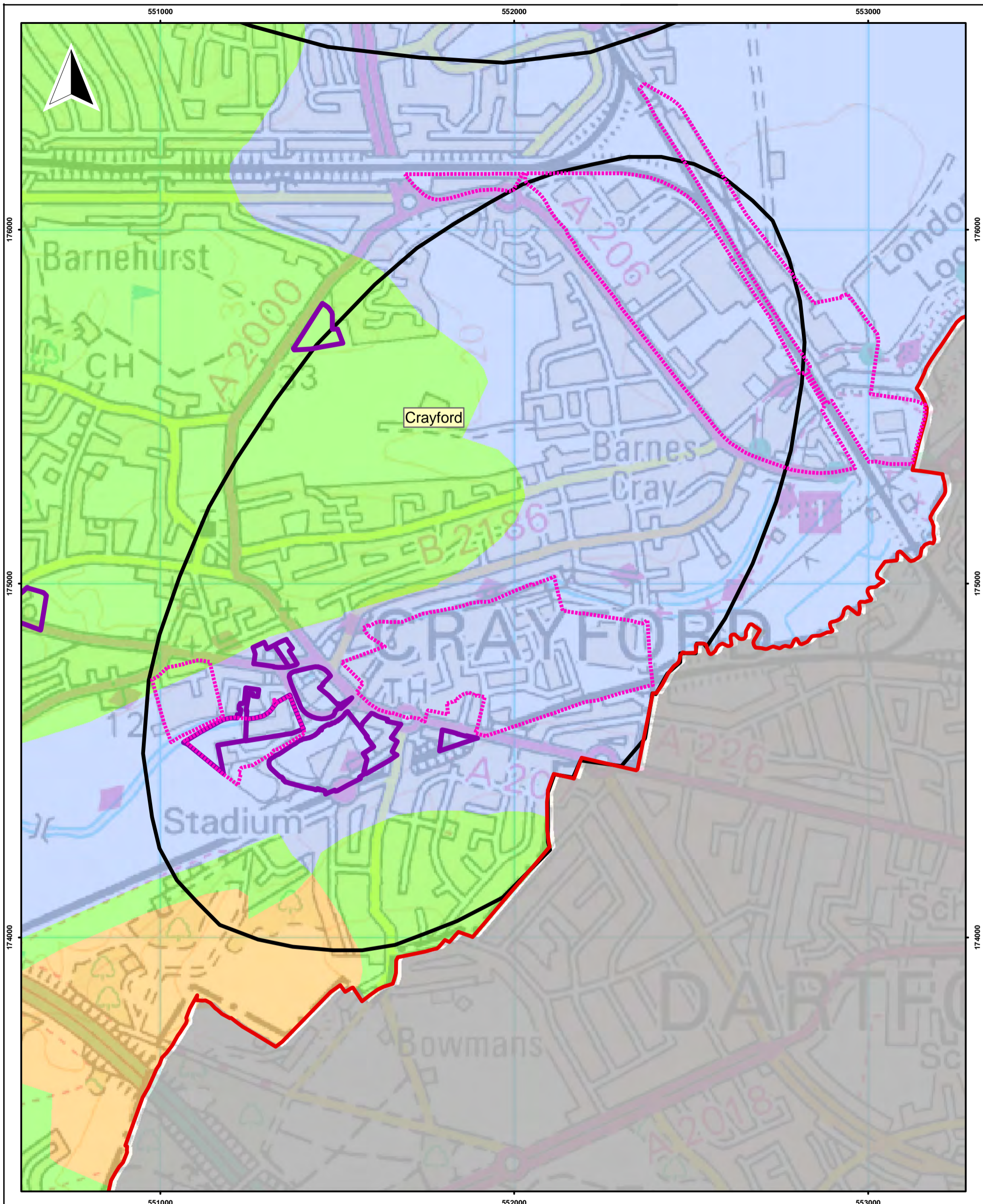
Scale: 1:10000 @ A3

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Figure D11
Crayford
Depth to Groundwater Head (m below ground level)

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Key:

- London Borough of Bexley Boundary
- LDF Growth Areas
- SHLAA Sites
- Employment Sites

Infiltration Suitability
Suitability of Infiltration SuDS

- Highly
- Highly with caution - owing to SPZ designation
- Intermediate
- Intermediate with caution - owing to SPZ designation
- Low
- Low with caution - owing to SPZ designation
- No data available

Bexley SFRA

Figure D12
Crayford
Soil Infiltration Potential to Inform the Suitability of Infiltration SuDS Techniques

0 130 260 390 520 Meters

Scale: 1:10000 @ A3

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