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LEGEND

- Borough Boundary
 - Main River (open)
 - Main River (culverted)
 - Ordinary Watercourse (open)
 - Ordinary Watercourse (culverted)
 - Flood Storage Areas
 - Historic Flood Map
 - Emergency Rest Centres
- Flood Zone 1 Low Probability
 - Flood Zone 2 Medium Probability
 - Flood Zone 3a High Probability
 - Flood Zone 3b Functional Floodplain
 - 1% AEP incl. Climate Change Defended
 - Flood Defences
 - Areas Benefiting from Flood Defences

NOTES Main Rivers are designated by Defra on a 'Main River Map'. The Environment Agency has permissive powers to carry out flood defence works, maintenance and operational activities for Main Rivers only. However overall responsibility for maintenance lies with the riparian owner. The Environment Agency Flood Map for Planning (Rivers and Sea) is available on the Environment Agency website (www.gov.uk/environment-agency) and displays flood risk based on probability. Flood Zone 1: Land assessed, ignoring the presence of flood defences, as having a less than 0.1% annual probability of fluvial or tidal flooding. Flood Zone 2: Land assessed, ignoring the presence of flood defences, as having between a 1% and 0.1% annual probability of fluvial flooding or between a 0.5% and 0.1% annual probability of tidal flooding in any year. Flood Zone 3: Land assessed, ignoring the presence of flood defences, as having a 1% or greater annual probability of fluvial flooding or a 0.5% or greater annual probability of tidal flooding in any year. The Flood Map displays the location of linear raised flood defences such as embankments and walls. Flood storage areas, land designated and operated to store flood water are displayed in a separate polygon layer. Land that may benefit from the presence of major defences during a 1% fluvial or 0.5% tidal flood event. These are areas that would flood if the defence were not present, but may not flood because the defence is present. Areas benefiting from flood storage areas may be remote from the flood defence structure. This map is intended to provide a strategic overview of fluvial flood risk and should not be used to assess flood risk for individual properties.

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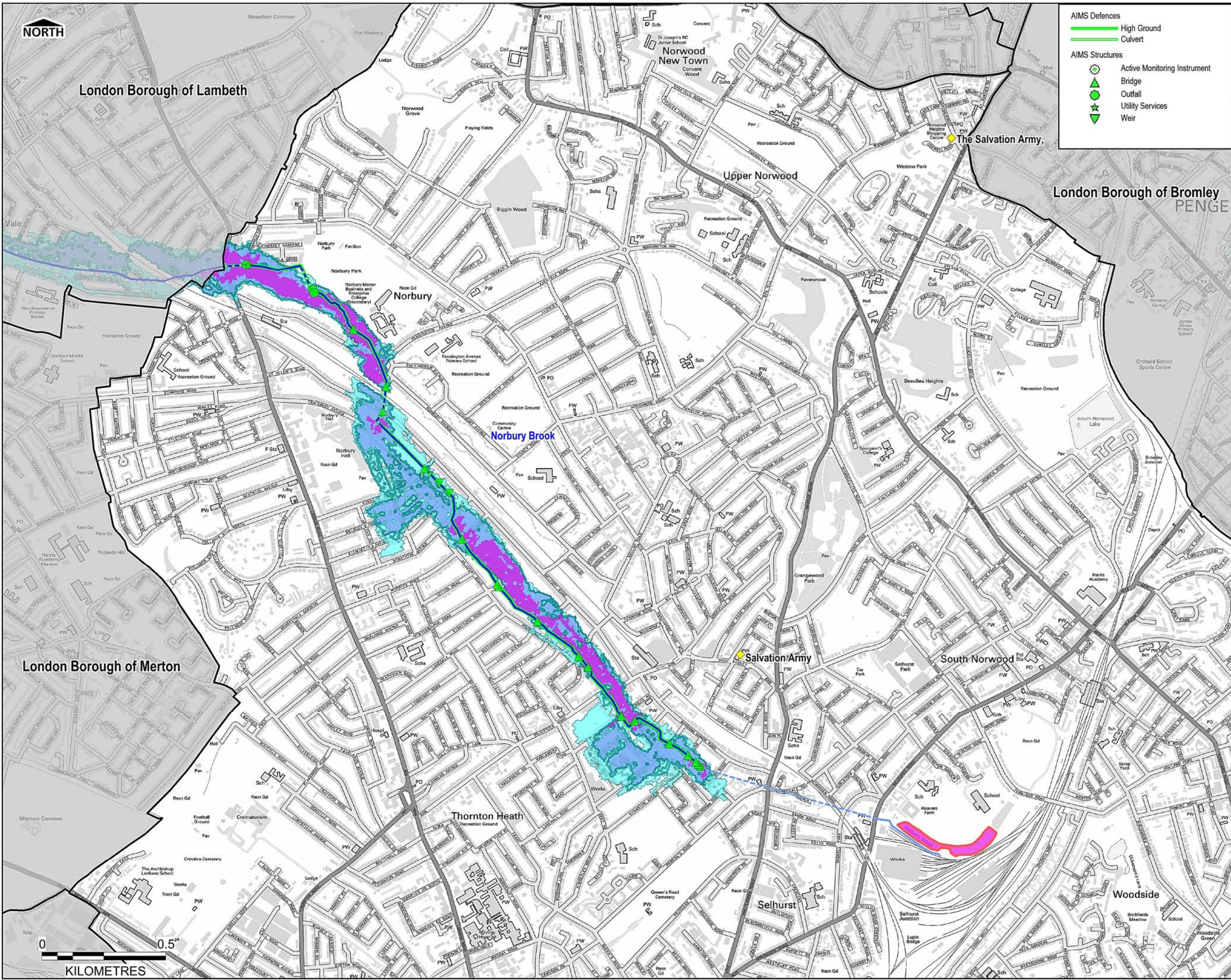
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Approved	EG	Date	23/10/2015

Project Title
LONDON BOROUGH OF CROYDON, MERTON, SUTTON AND WANDSWORTH LEVEL 1 STRATEGIC FLOOD RISK ASSESSMENT

Drawing Title
FLUVIAL FLOOD RISK CROYDON

Client

Figure 8



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

LEGEND

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Flood Defences

- Areas Benefiting from Flood Defences
- Historic Flood Map
- Flood Storage Areas
- Emergency Rest Centres

Notes

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The Environment Agency Flood Map for Planning (Rivers and Sea) is available on the Environment Agency website (www.gov.uk/environment-agency) and displays the risk of flooding based on probability.

Flood Zone 1: Land assessed, ignoring the presence of flood defences, as having a less than 0.1% annual probability of fluvial or tidal flooding.

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Flood Zone 3: Land assessed, ignoring the presence of flood defences, as having a 1% or greater annual probability of fluvial flooding or a 0.5% or greater annual probability of tidal flooding in any year.

The Flood Map displays the location of linear raised flood defences such as embankments and walls.

Flood storage areas, land designated and operated to store flood water are displayed in a separate polygon layer.

Land that may benefit from the presence of major defences during a 1% fluvial or 0.5% tidal flood event. These are areas that would flood if the defence were not present, but may not flood because the defence is present. Areas benefiting from flood storage areas may be remote from the flood defence structure.

This map is intended to provide a strategic overview of fluvial flood risk and should not be used to assess flood risk for individual properties.

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Revision Details	By	Check	Date	Suffix
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Purpose of Issue: **FINAL**

Client:

Project Title:
LONDON BOROUGHS OF CROYDON, SUTTON, MERTON AND WANDSWORTH LEVEL 1 STRATEGIC FLOOD RISK ASSESSMENT

Drawing Title:
FLUVIAL FLOOD RISK AND AIMS FLOOD DEFENCES CROYDON

Drawn	Checked	Approved	Date
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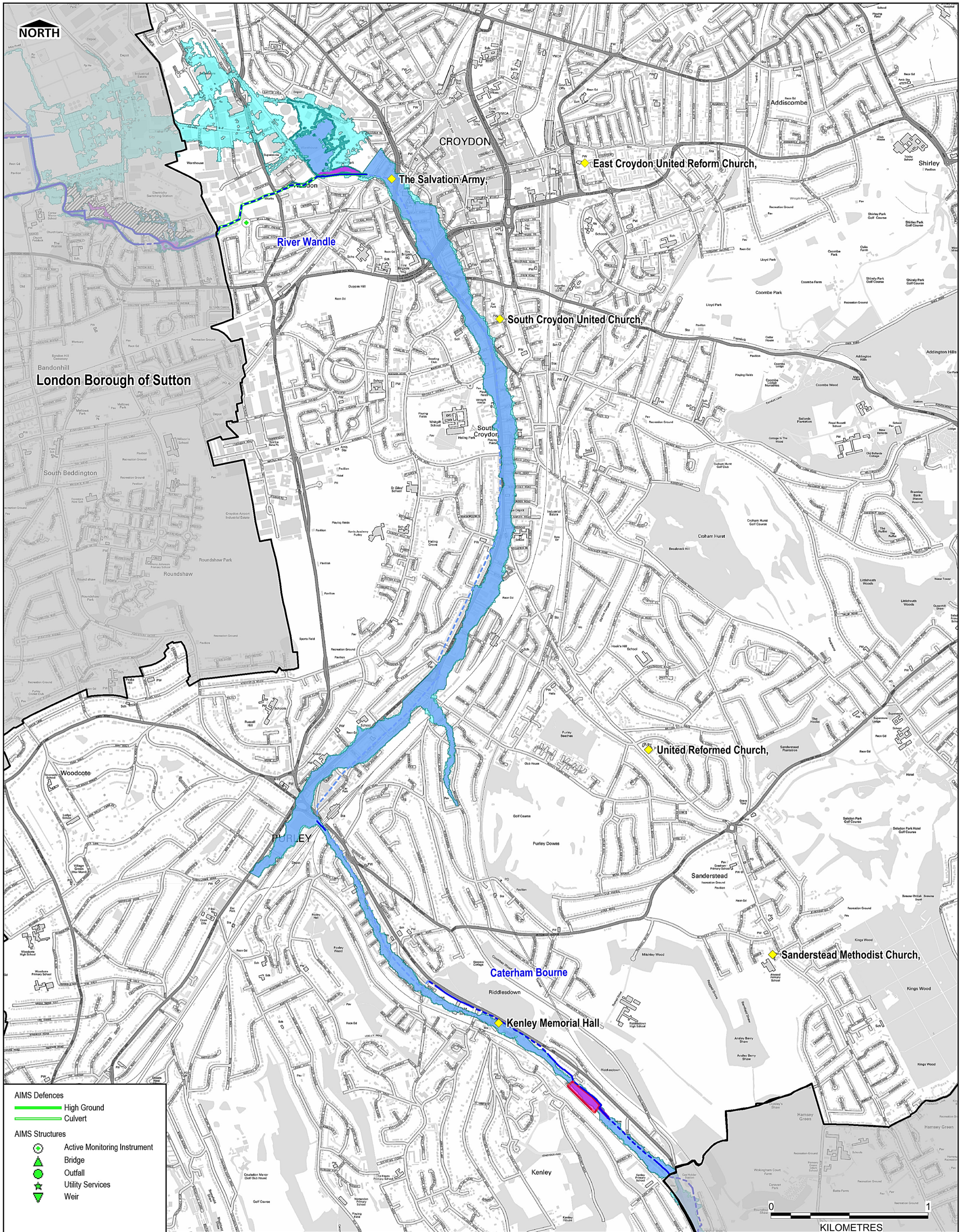
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Figure 9

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Project Title
LONDON BOROUGH OF CROYDON, MERTON AND WANDSWORTH LEVEL 1 STRATEGIC FLOOD RISK ASSESSMENT

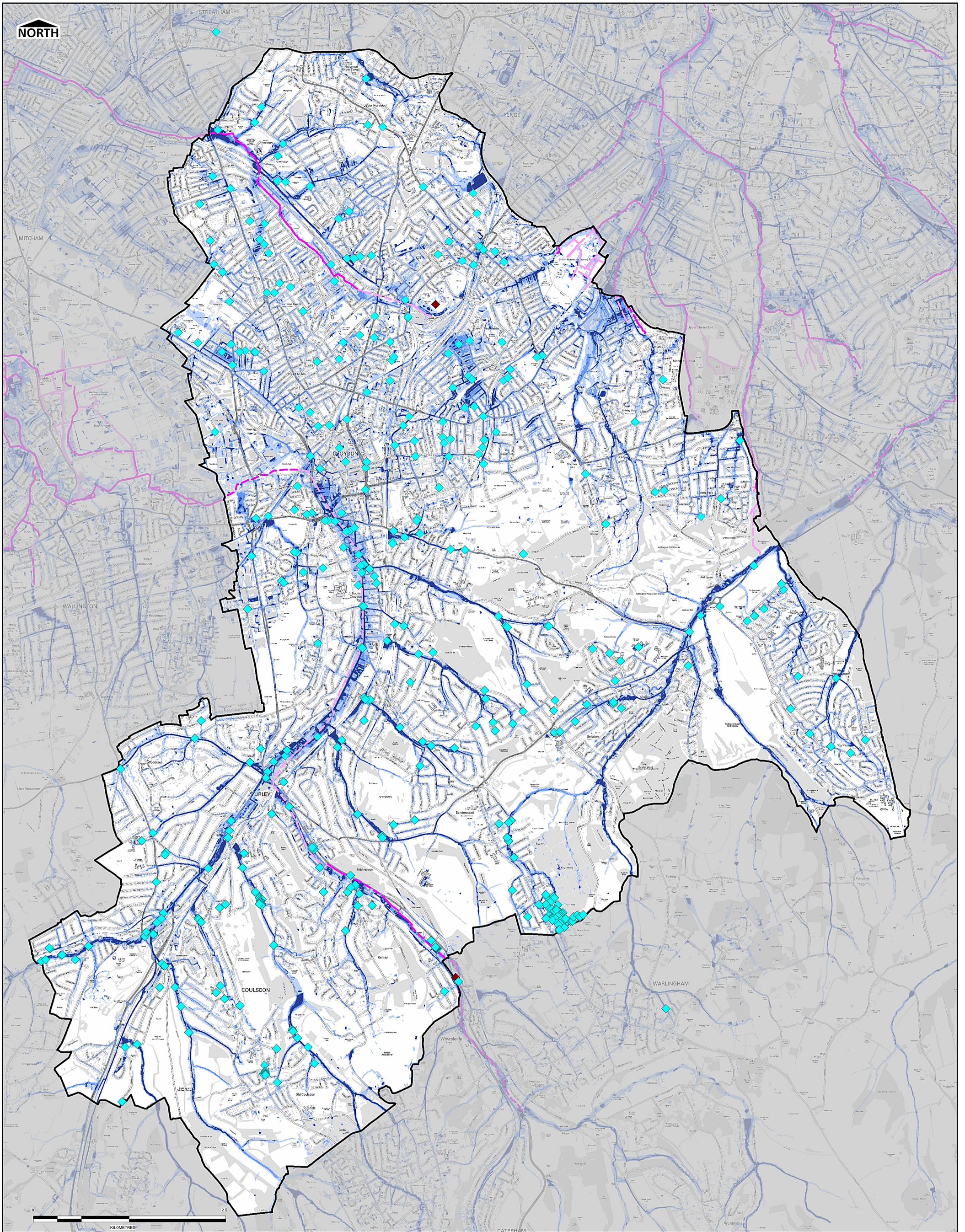
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FLUVIAL FLOOD RISK AND AIMS FLOOD DEFENCES CROYDON

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Figure 10



- LEGEND**
- Borough Boundary
 - Main River (open)
 - Main River (culverted)
 - Ordinary Watercourse (open)
 - Ordinary Watercourse (culverted)

- Risk of Flooding from Surface Water**
- High Risk (3.3% AEP)
 - Medium Risk (1% AEP)
 - Low Risk (0.1% AEP)
 - Very Low Risk (<0.1% AEP)
 - ◆ Surface Water Flooding Records (Council)
 - ◆ Multiple Source Flooding Records (Council)

NOTES This map shows the predicted likelihood of surface water flooding based on the Environment Agency's updated Flood Map for Surface Water (uFMISW) data, which may be subject to further analysis in the future. Further information is provided on the Environment Agency website (www.gov.uk/environment-agency).

The Risk from Surface Water Flooding is divided into categories:
 High: each year, the chance of flooding is greater than 1 in 30 (3.3%).
 Medium: each year, the chance of flooding is between 1 in 100 (1%) and 1 in 30 (3.3%).
 Low: each year, the chance of flooding is between 1 in 1000 (0.1%) and 1 in 100 (1%).
 Very Low: each year, the chance of flooding is less than 1 in 1000 (0.1%).

The potential impact of surface water flooding can vary according to the depth of the water, and its velocity and direction that it is flowing in.

Surface water flooding happens when rainwater does not drain away through the normal drainage systems and soaks into the ground, but lies on or flows over the ground instead. This type of flooding can be difficult to predict as it is hard to forecast exactly where or how much rain will fall in any storm.

This map is intended to provide a strategic overview of surface water flood risk and should not be used to assess flood risk for individual properties.

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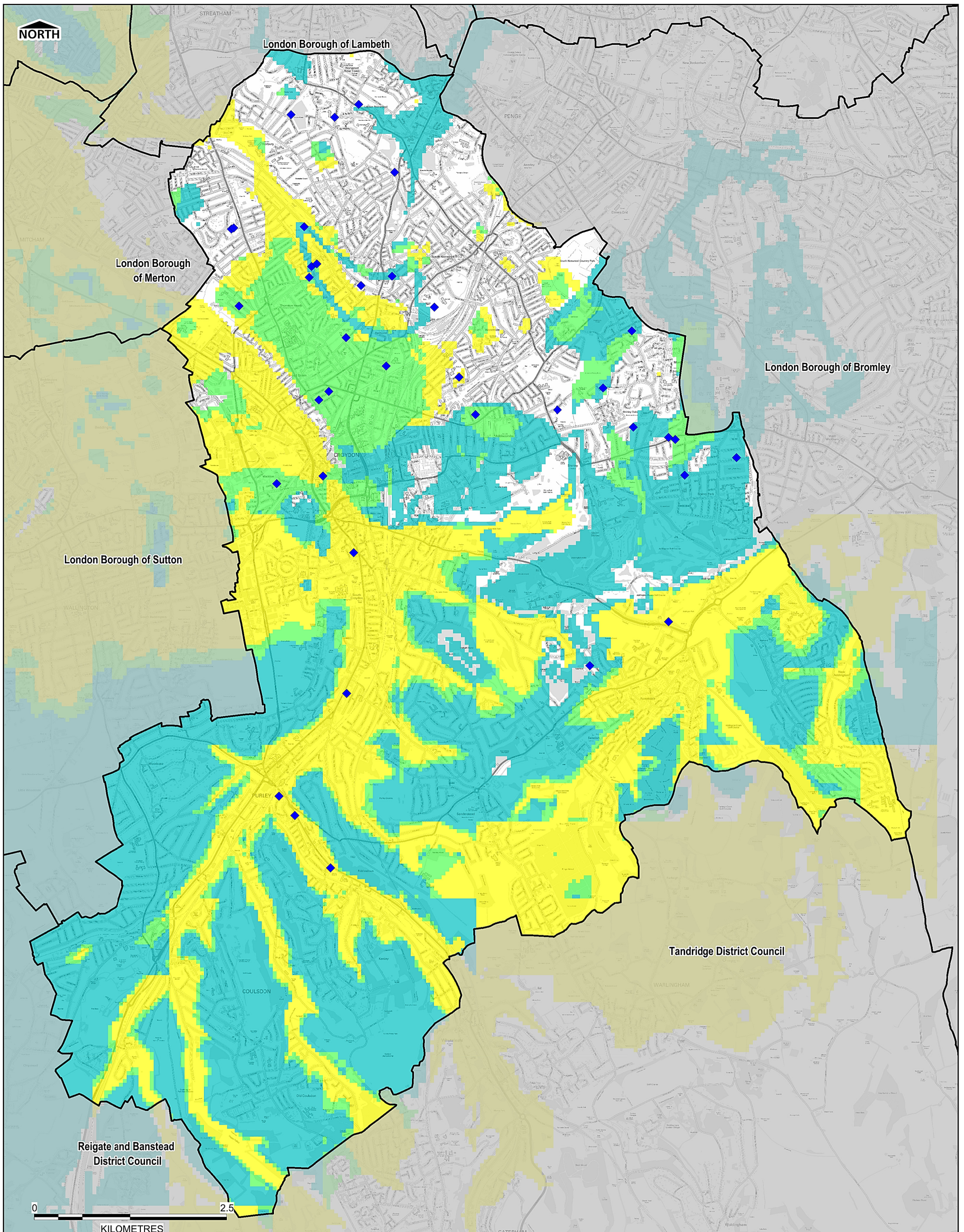
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LONDON BOROUGHS OF CROYDON, MERTON, SUTTON AND WANDSWORTH LEVEL 1 STRATEGIC FLOOD RISK ASSESSMENT

Drawing Title
SURFACE WATER FLOOD RISK [CROYDON]

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Figure 11



LEGEND

Borough Boundary
 ◆ Groundwater Flooding Record (Council)

BGS Susceptibility to Groundwater Flooding

- Limited potential for groundwater flooding to occur
- Potential for groundwater flooding of property situated below ground level
- Potential for groundwater flooding to occur at surface

NOTES

Groundwater flooding (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) is increasingly being recognised as a hazard. However, until the wet winter of 2000/2001 it had received little attention from the research community in the UK. Local knowledge of historic groundwater flooding events had generally been the only guide to an area's susceptibility to flooding. Unfortunately, local knowledge is patchy and can be unreliable and often groundwater flooding is not recognised as a distinct event, being masked by surface water floods. In response to the need for more information on groundwater flooding, BGS has produced the first national dataset on the susceptibility of groundwater flooding, covering England, Wales and Scotland.

The susceptibility data is suitable for use for regional or national planning purposes where the groundwater flooding information will be used along with a range of other relevant information to inform land-use planning decisions. It might also be used in conjunction with a large number of other factors, e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information, to establish relative, but not absolute, risk of groundwater flooding at a resolution of greater than a few hundred metres. The confidence dataset will help in this assessment. The susceptibility data should not be used on its own to make planning decisions at any scale, and, in particular, should not be used to inform planning decisions at the site scale. The susceptibility data cannot be used on its own to indicate risk of groundwater flooding.

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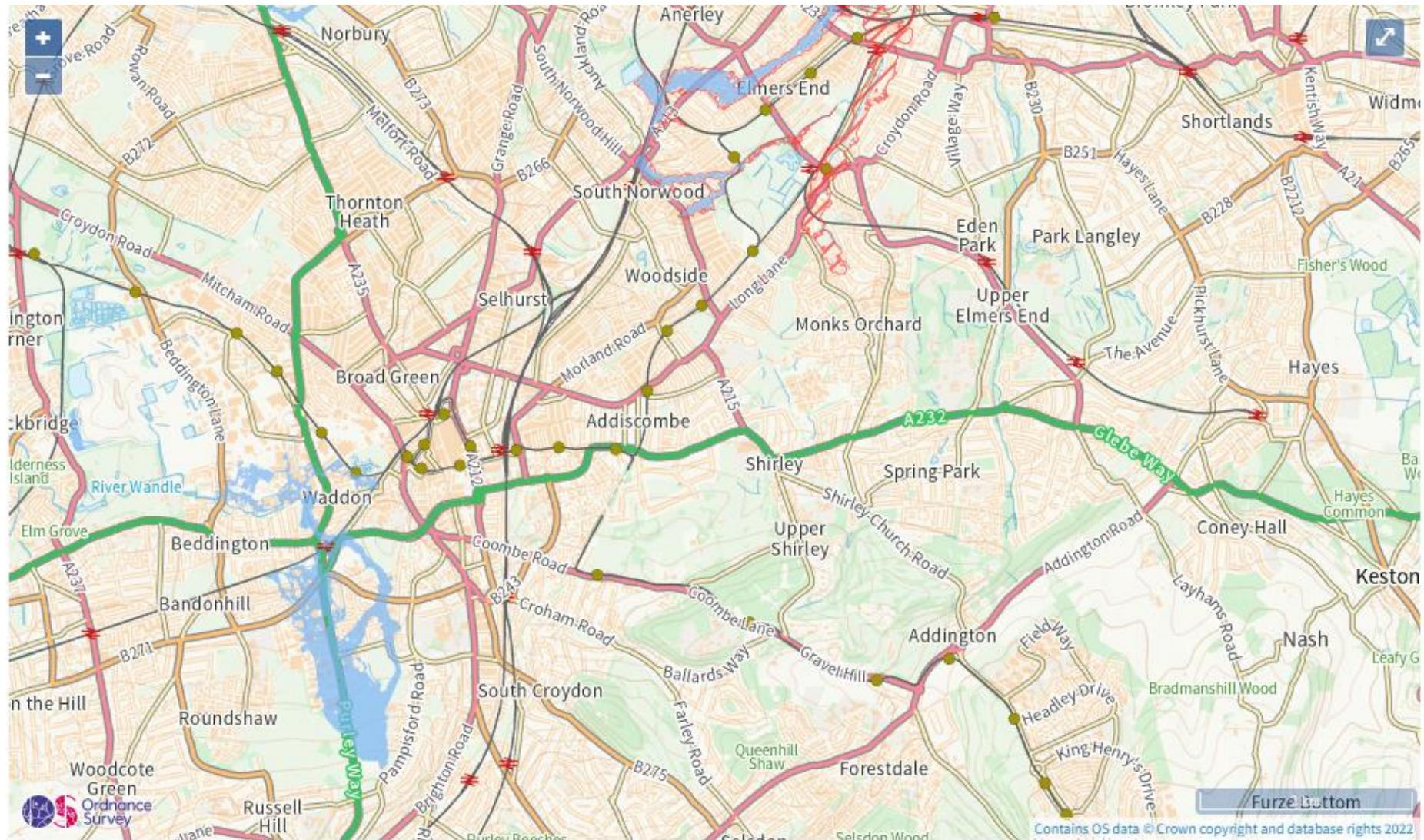
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BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING CROYDON

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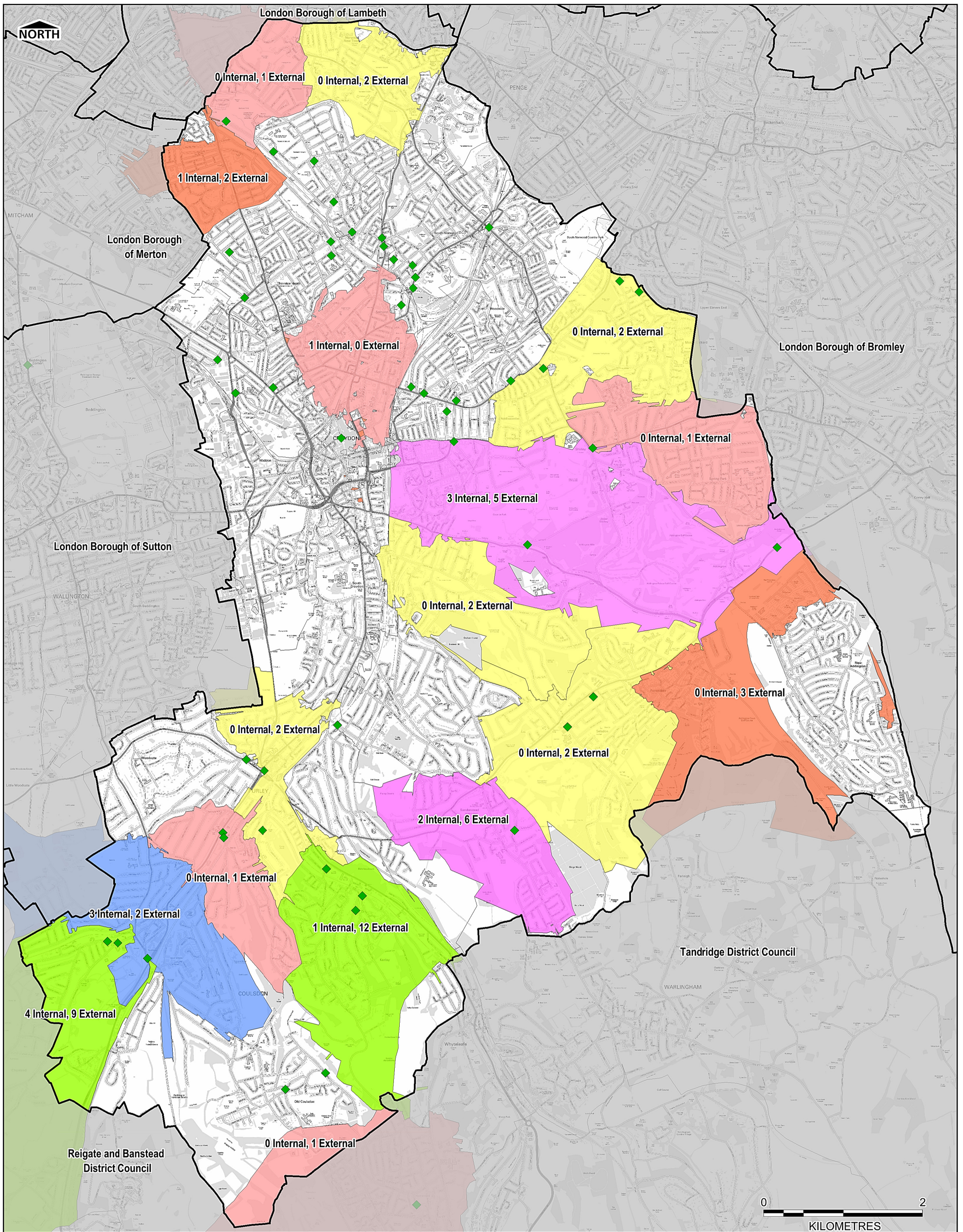
Figure 12



Maximum extent of flooding from reservoirs:

- when river levels are normal
- ▨ when there is also flooding from rivers

Figure 13 Croydon Reservoir Flood Map (Environment Agency, 2021)



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LEGEND

- Borough Boundary
- Council Sewer Flooding Records
- Thames Water Sewer Flooding Records**
- 1
- 2
- 3
- 5
- 8
- 13

NOTES

Thames Water Utilities Ltd has provided an extract from their DGS Register for the study area. Due to data protection requirements the data has not been provided at individual property level; rather the register comprises the number of properties within 4 digit postcode areas that have experienced flooding either internally or externally within the last 10 - 20 years. For the purpose of this study, records for the last 10 years have been used.

It should be noted that records only appear on the DGS Register where they have been reported to TWU, and as such they may not include all instances of sewer flooding.

Furthermore given that TWU target these areas for maintenance and improvements, areas that have experienced flooding in the past may no longer be at greatest risk of flooding in the future.

This map is intended to provide a strategic overview of areas at risk of sewer flooding and should not be used to assess flood risk for individual properties.

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SEWER FLOODING RECORDS CROYDON

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Figure 14

