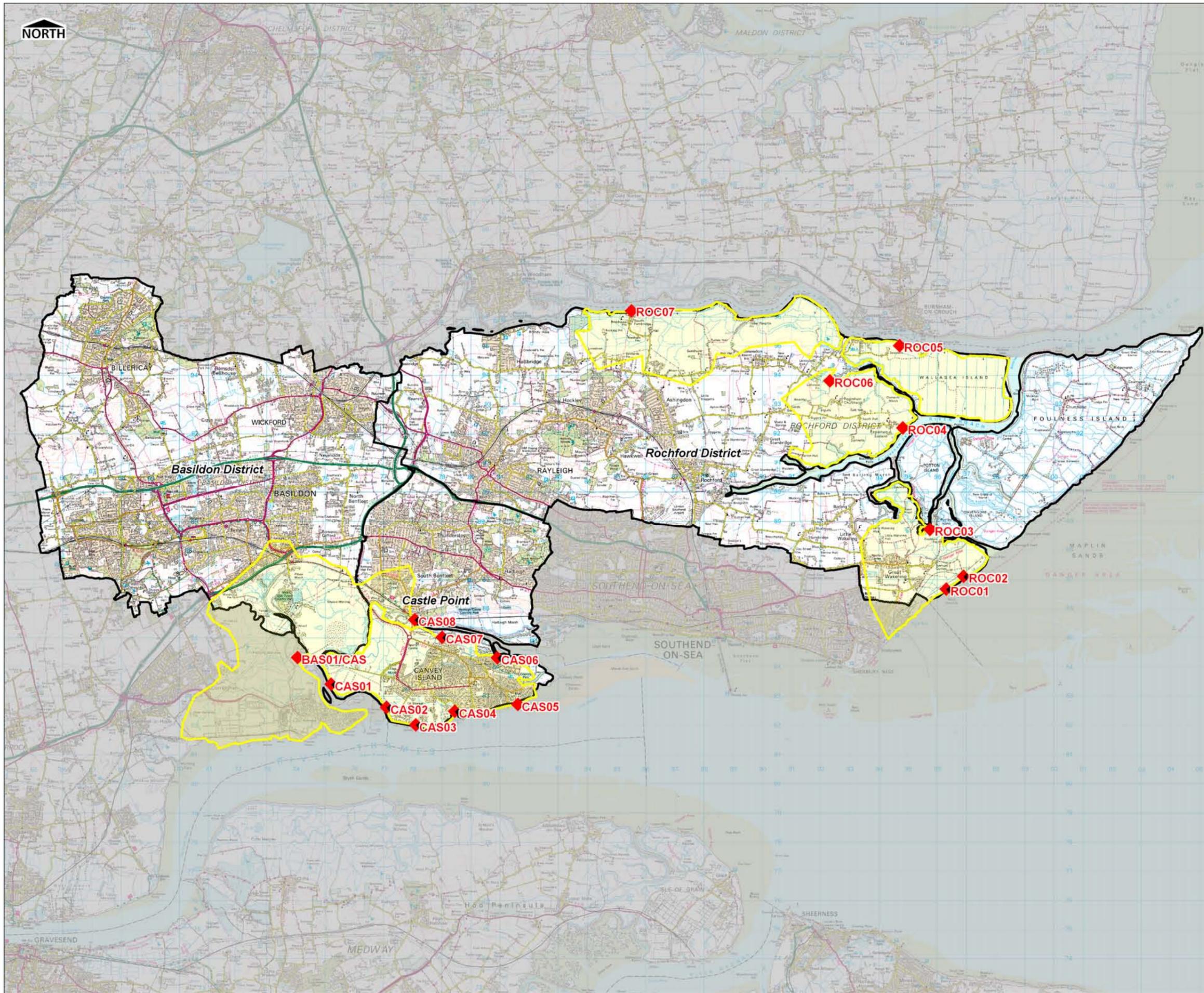

Appendix A: General Figures

Figure A01	Study Area & Breach Locations
Figure A02	LiDAR Topographic Survey
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Figure A05	Rochford Growth Areas
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Figure A11	Areas Susceptible to Surface Water Flooding & Surface Water Flooding Records
Figure A12	Flood Defences Design Standard (NFCDD)
Figure A13	NaFRA (National Flood Risk Assessment Dataset)



- KEY**
- District/Borough Boundary
 - Breach Modelling Flood Cells
 - ◆ Breach Locations & Label



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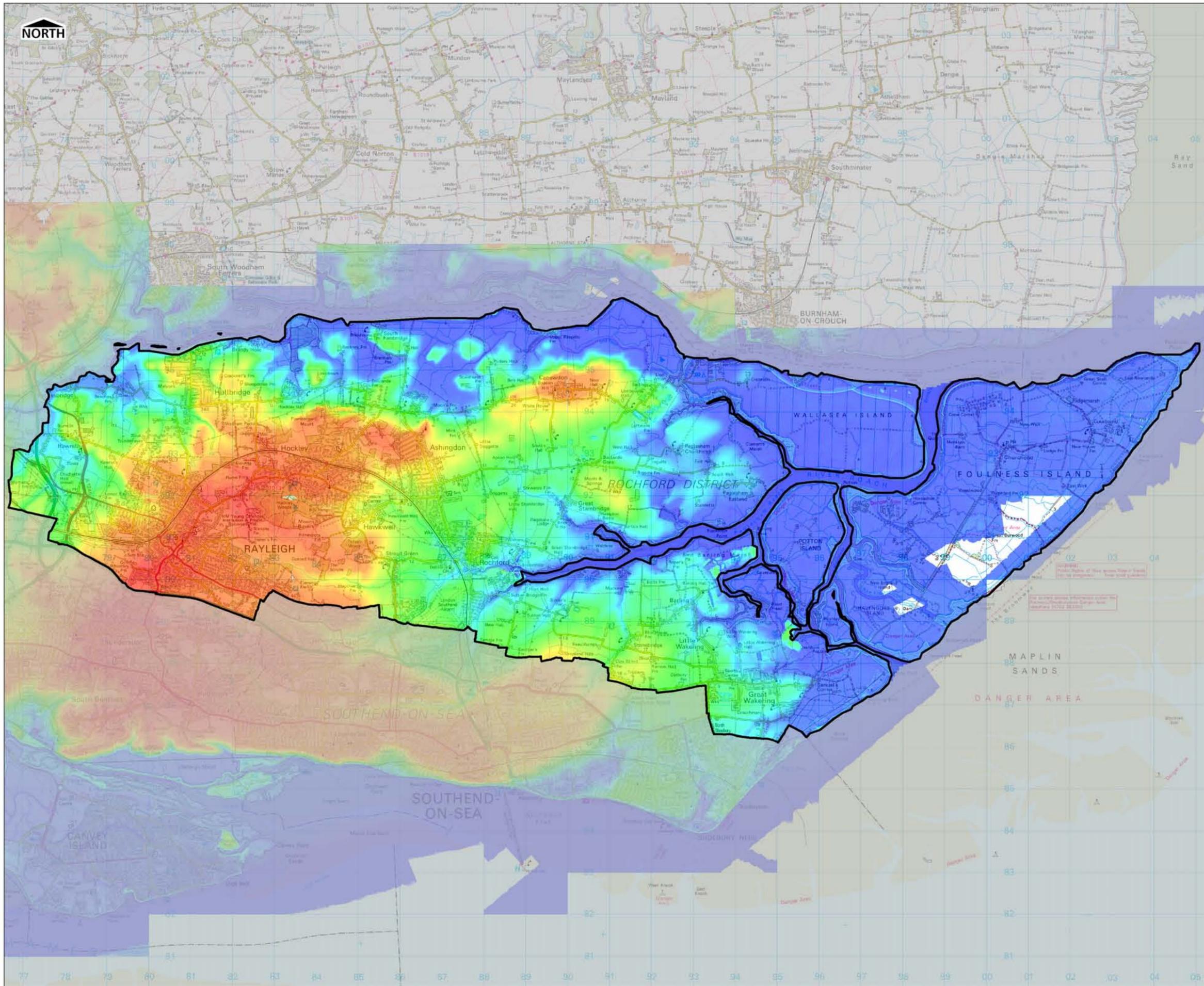
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 STUDY AREA



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FIGURE A-1



KEY

 Rochford District Boundary

LiDAR Topography [m AOD]

-  < 2
-  5
-  10
-  20
-  30
-  > 80

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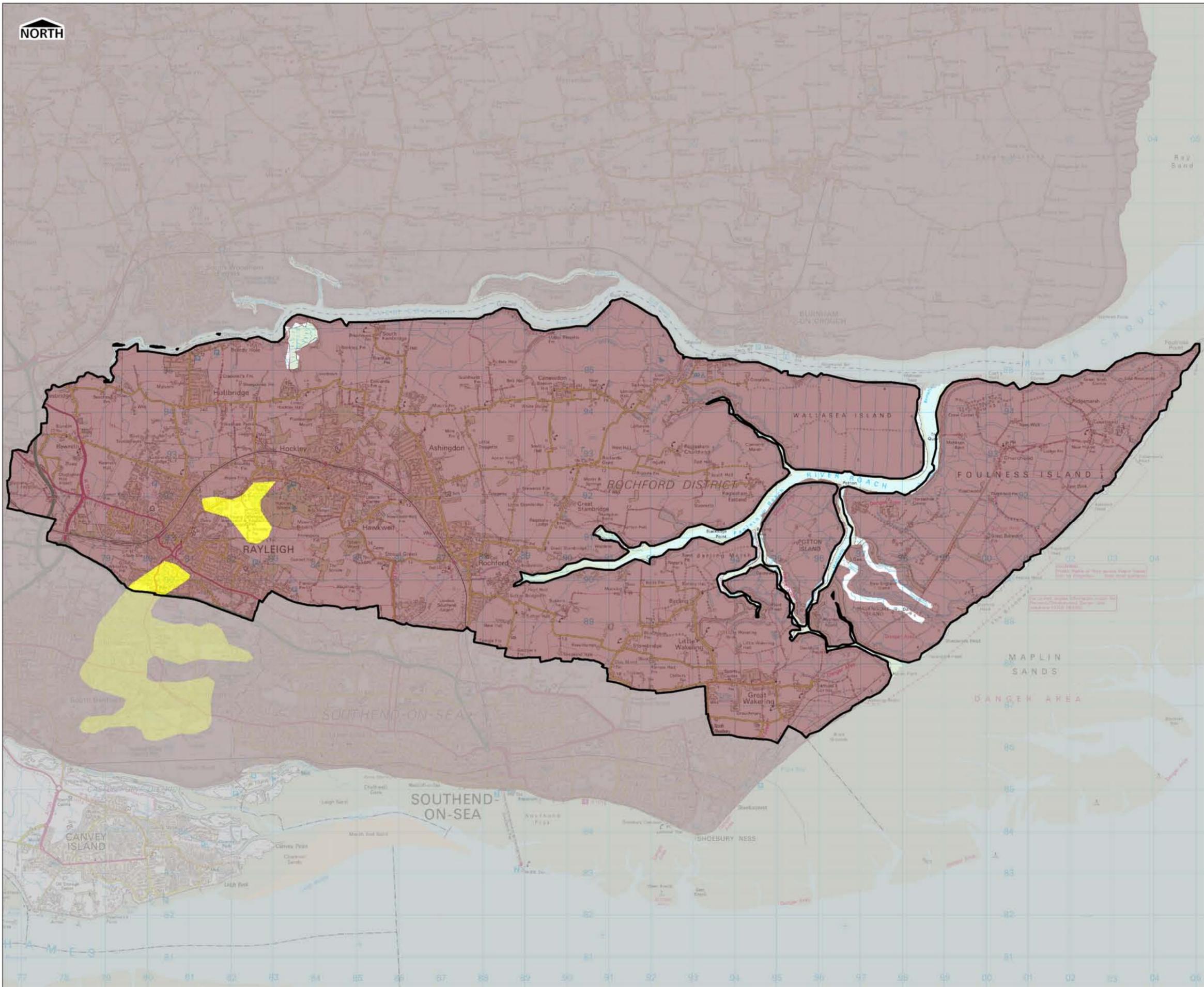
LIDAR TOPOGRAPHIC DATA



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FIGURE A-2



KEY

Rochford District Boundary

Bedrock Geology

Thames Group
(Clay, Silt, Sand, Gravel)

Bracklesham & Barton Groups
(Sand, Silt, Clay)

Lambeth Group
(Clay, Silt, Sand, Gravel)

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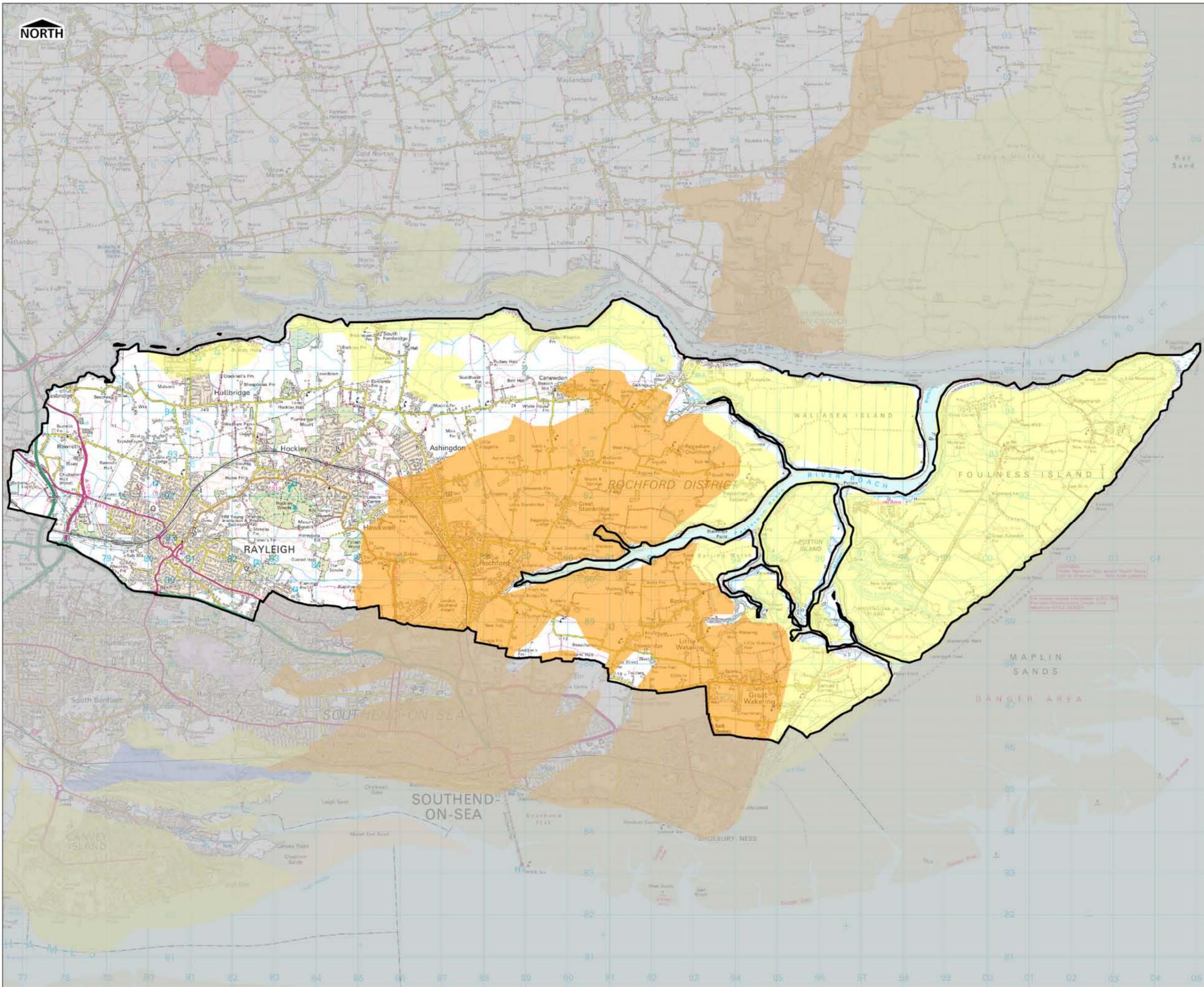
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FIGURE A-3



KEY

 Rochford District Boundary

Superficial Geology

-  Alluvium
-  Brickearth
-  River Terrace Deposits
-  Sand and Gravel
-  Glacial Sand and Gravel
-  Landslip

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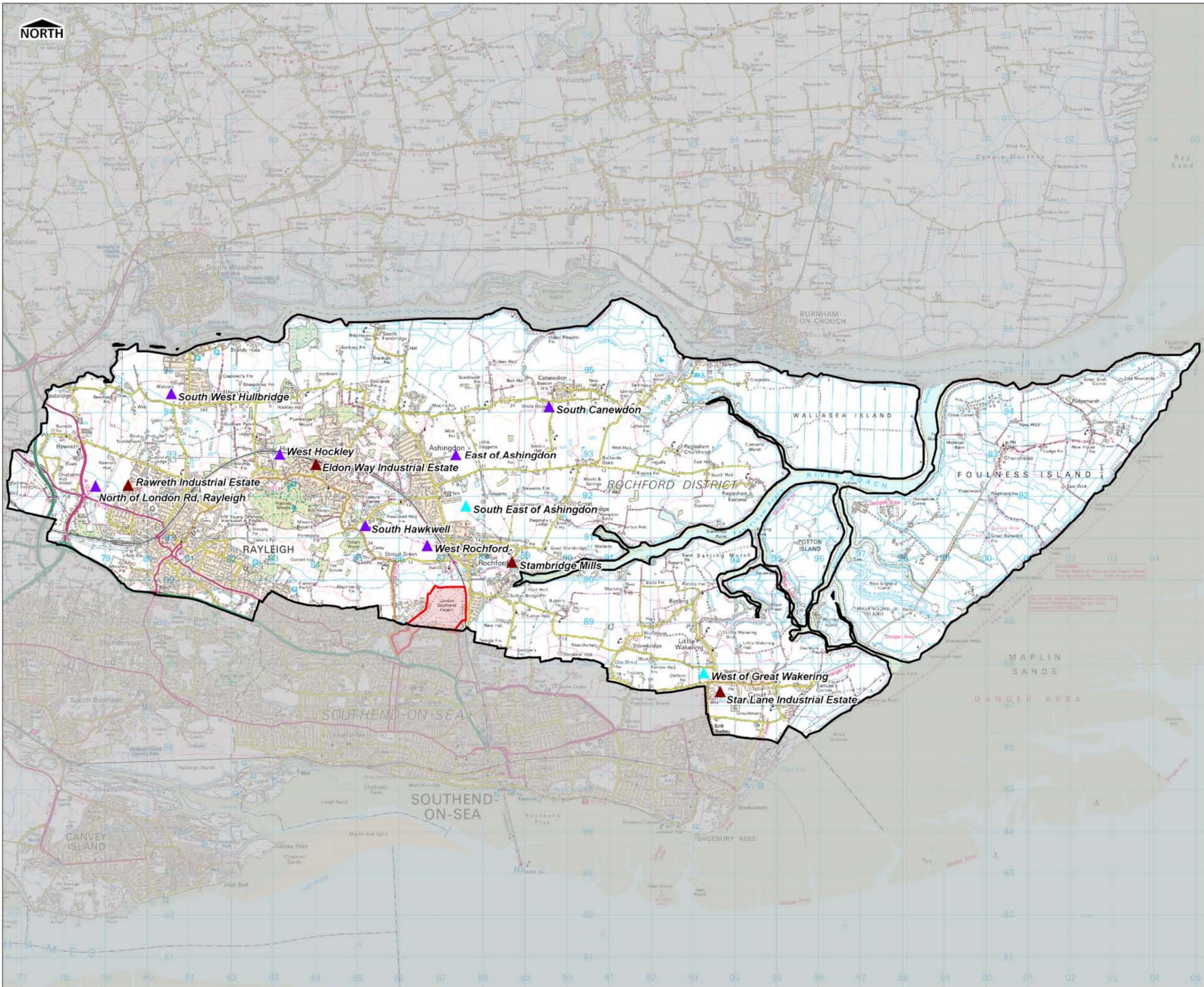
SUPERFICIAL GEOLOGY



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FIGURE A-4



KEY

- Rochford District Boundary
- Core Strategy Development Locations**
 - Extensions to Residential Envelope pre-2021
 - Extensions to the Residential Envelope post 2021
 - Redevelopment of Employment Land for Residential Use
 - London Southend Airport & Environs Joint Area Action Plan

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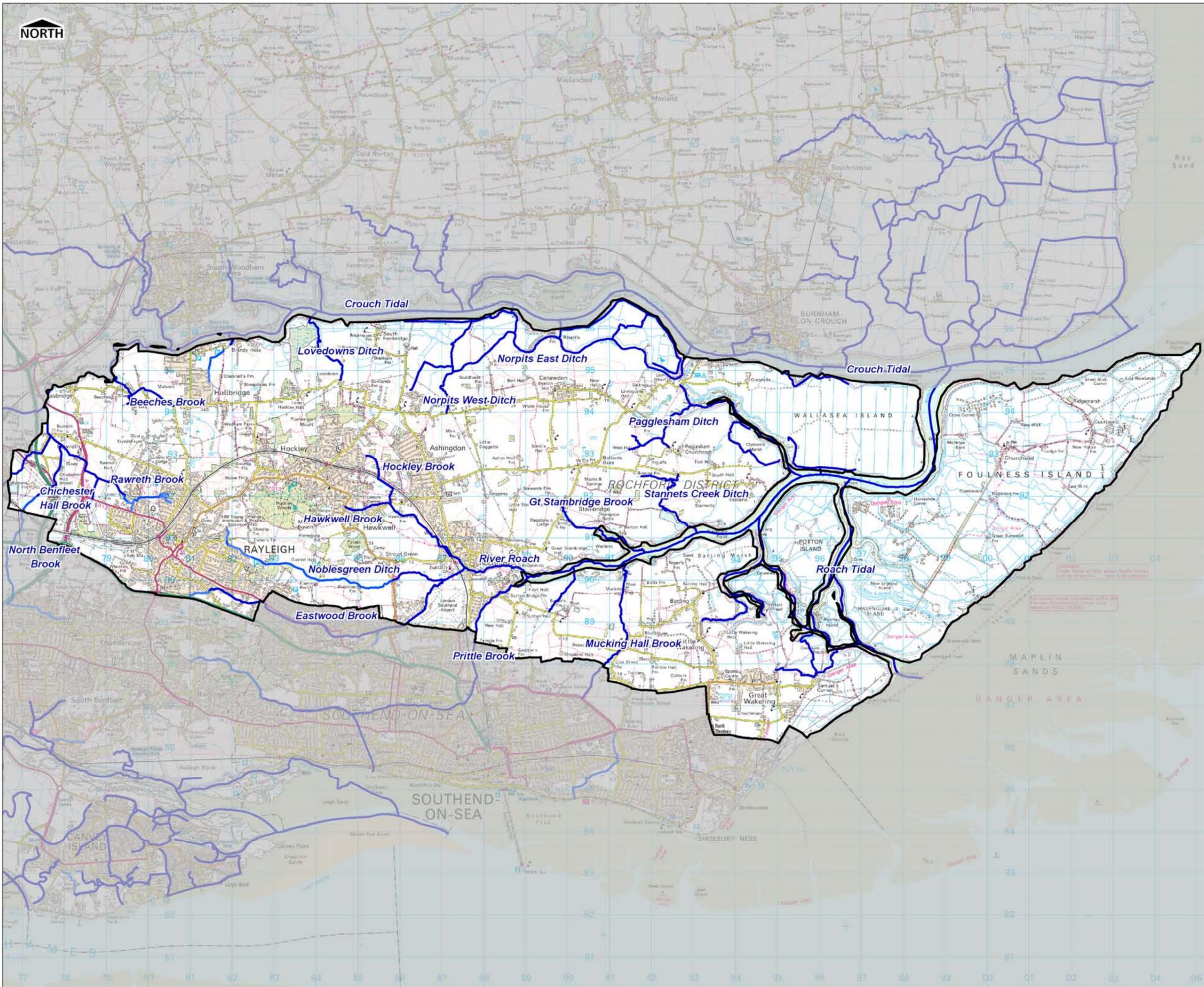
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CORE STRATEGY
 DEVELOPMENT LOCATIONS



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FIGURE A-5



- KEY**
- Rochford District Boundary
 - Environment Agency Main Rivers
 - Critical Ordinary Watercourses

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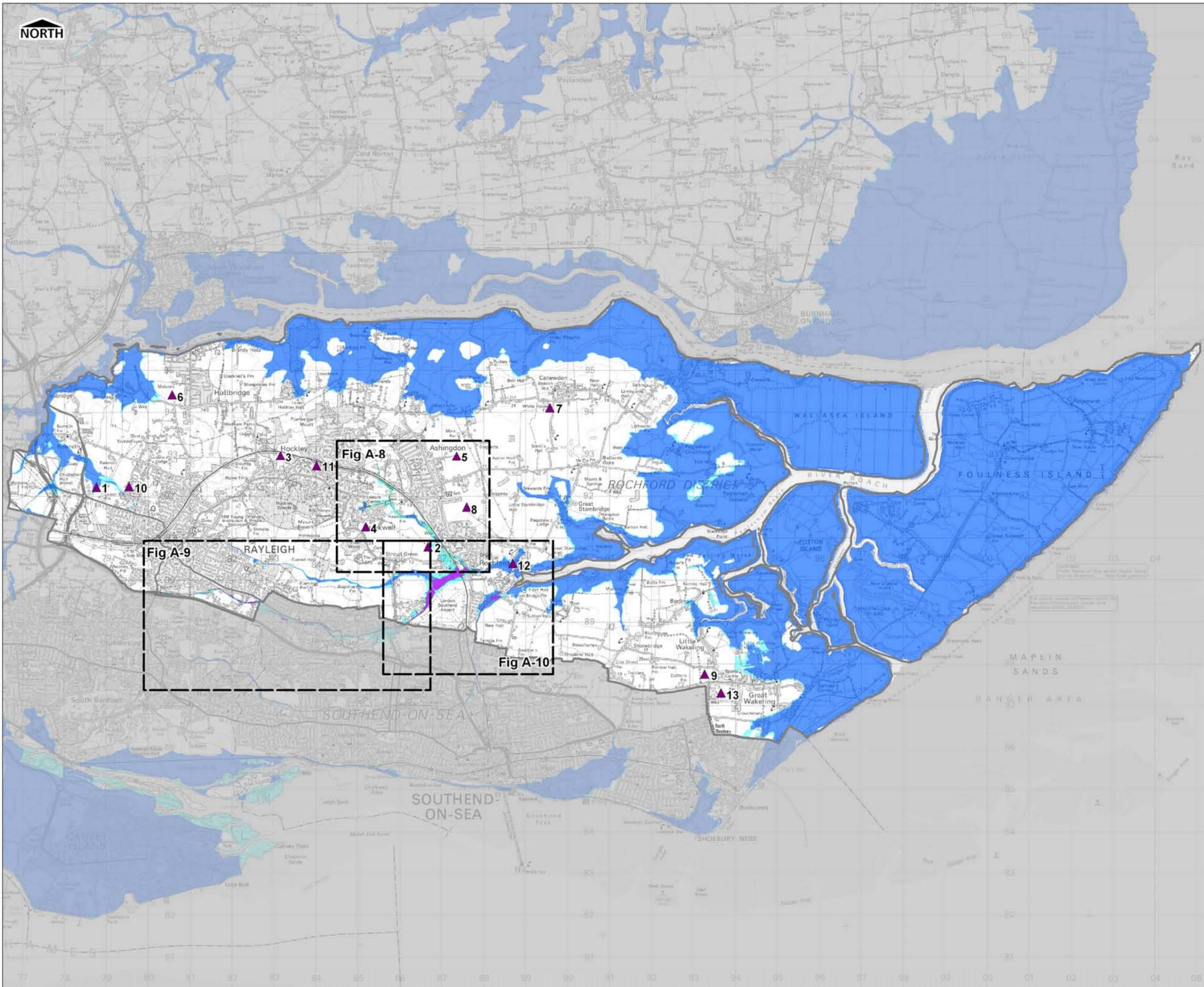
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EA MAIN RIVERS & CRITICAL ORDINARY WATERCOURSES



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FIGURE A-6



KEY

Rochford District Boundary

Flood Zones

- FZ 2 - Low Probability
- FZ 3a - High Probability
- FZ 3a including Climate Change
- FZ 3b - Functional Floodplain

▲ Core Strategy Development Areas

- 1 North of London Rd, Rayleigh
- 2 West Rochford
- 3 West Hockley
- 4 South Hawkwell
- 5 East Ashingdon
- 6 South West Hullbridge
- 7 South Canewdon
- 8 South East Ashingdon
- 9 West Great Wakering
- 10 Rawreth Lane Industrial Estate
- 11 Eldon Way / Foundry Industrial Estate
- 12 Stambridge Mill
- 13 Star Lane Industrial Estate

USER NOTE
 Flood Zones have been provided by the Environment Agency's Flood Risk and Mapping Department for the watercourses where modelling is available. The Main Report of the SFRA should be consulted to identify the source of the flood outlines and the modelled return periods used to delineate each flood zone.

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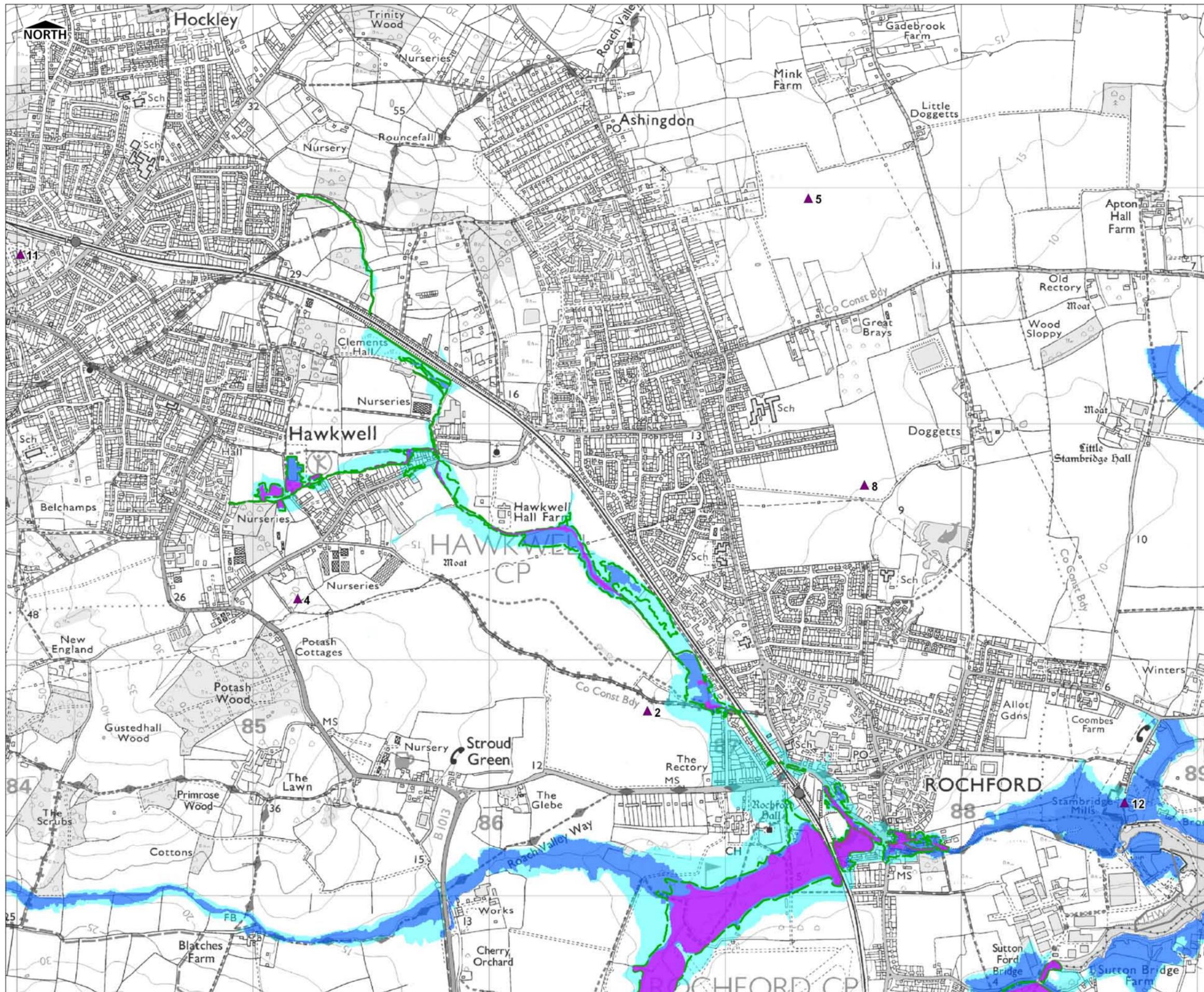
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FLOOD ZONES



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FIGURE A-7



KEY

□ Rochford District Boundary

Flood Zones

- FZ 2 - Low Probability
- FZ 3a - High Probability
- FZ 3a including Climate Change
- FZ 3b - Functional Floodplain

▲ Core Strategy Development Areas

- 1 North of London Rd, Rayleigh
- 2 West Rochford
- 3 West Hockley
- 4 South Hawkwell
- 5 East Ashingdon
- 6 South West Hullbridge
- 7 South Canewdon
- 8 South East Ashingdon
- 9 West Great Waking
- 10 Rawreth Lane Industrial Estate
- 11 Eldon Way / Foundry Industrial Estate
- 12 Stambridge Mill
- 13 Star Lane Industrial Estate

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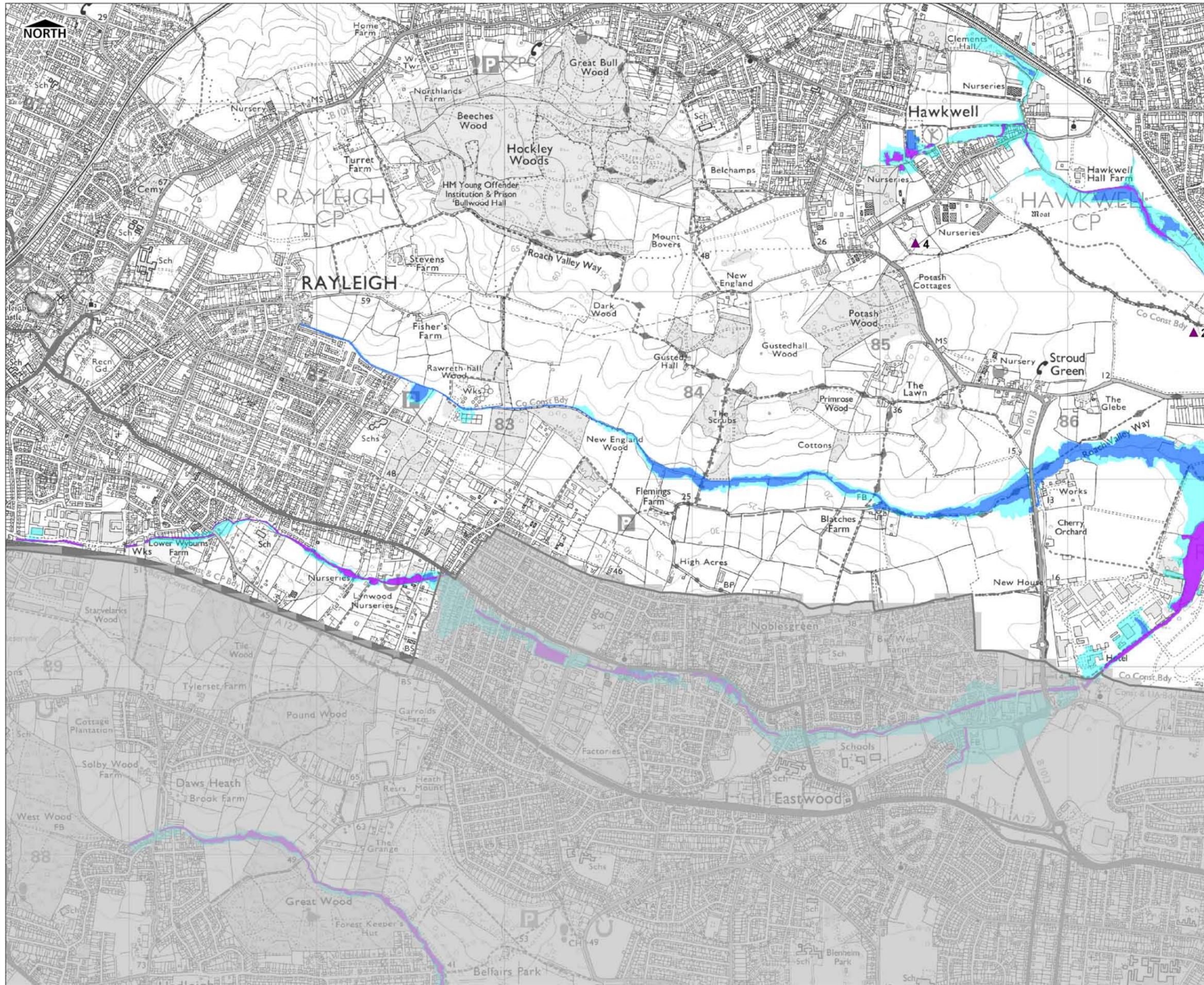
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FLOOD ZONES - HAWKWELL



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FIGURE A-8



KEY

□ Rochford District Boundary

Flood Zones

- FZ 2 - Low Probability
- FZ 3a - High Probability
- FZ 3a including Climate Change
- FZ 3b - Functional Floodplain

▲ Core Strategy Development Areas

- 1 North of London Rd, Rayleigh
- 2 West Rochford
- 3 West Hockley
- 4 South Hawkwell
- 5 East Ashingdon
- 6 South West Hullbridge
- 7 South Canewdon
- 8 South East Ashingdon
- 9 West Great Wakering
- 10 Rawreth Lane Industrial Estate
- 11 Eldon Way / Foundry Industrial Estate
- 12 Stambridge Mill
- 13 Star Lane Industrial Estate

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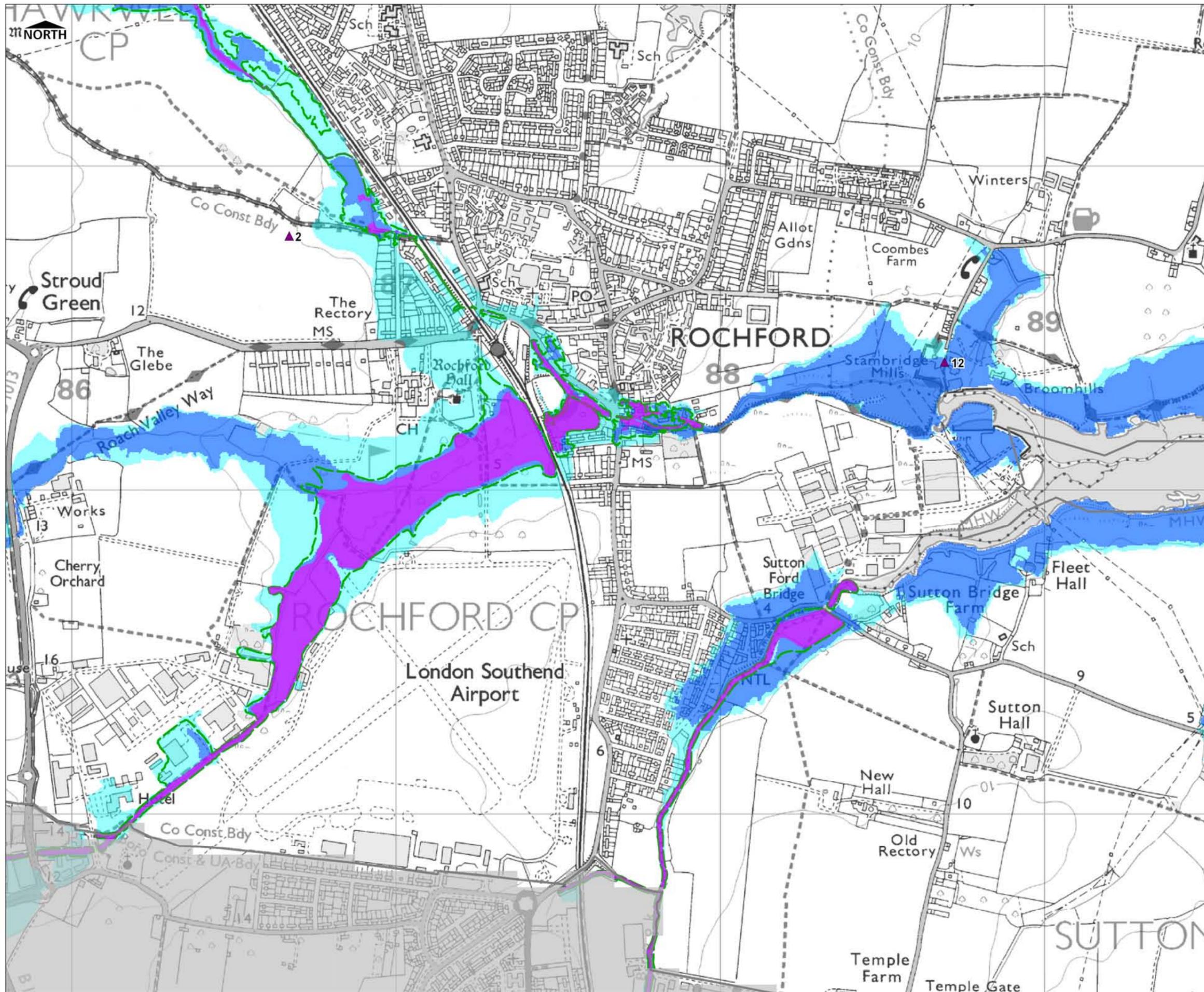
FLOOD ZONES - RAYLEIGH



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FIGURE A-9



KEY

□ Rochford District Boundary

Flood Zones

- FZ 2 - Low Probability
- FZ 3a - High Probability
- FZ 3a including Climate Change
- FZ 3b - Functional Floodplain

▲ **Core Strategy Development Areas**

- 1 North of London Rd, Rayleigh
- 2 West Rochford
- 3 West Hockley
- 4 South Hawkwell
- 5 East Ashingdon
- 6 South West Hullbridge
- 7 South Canewdon
- 8 South East Ashingdon
- 9 West Great Wakering
- 10 Rawreth Lane Industrial Estate
- 11 Eldon Way / Foundry Industrial Estate
- 12 Stambridge Mill
- 13 Star Lane Industrial Estate

USER NOTE
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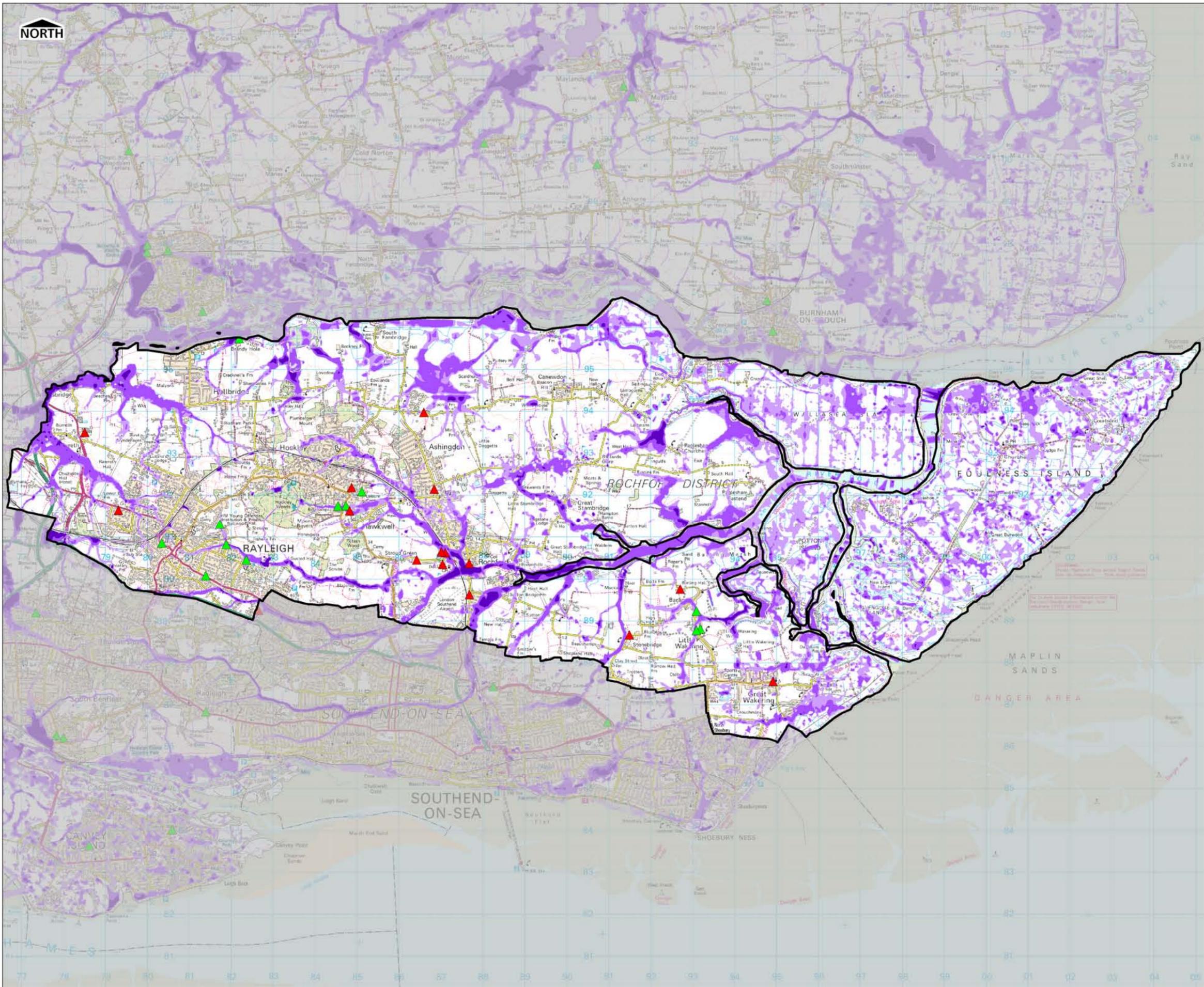
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FLOOD ZONES - ROCHFORD

Basildon Council castlepoint Rochford District Council

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FIGURE A-10



KEY

- Rochford District Boundary

Areas Susceptible to Surface Water Flooding (Environment Agency Dataset)

- Less
- Intermediate
- More

- Records of Flooding within Rochford DC
- Sewer Flooding Records (Anglian Water DG5 Records)

USER NOTE
 The Areas Susceptible to Surface Water Flooding dataset provides national coverage and has been produced using a highly simplified method that excludes urban sewerage and drainage systems, excludes buildings, and uses a single rainfall event. It is noted that this mapping is intended for use by the Local Resilience Forums solely to inform emergency planning and should not be used for spatial planning decisions. In addition, the Environment Agency strongly recommend that local knowledge is applied to assess the suitability of the mapping as an indicator of surface water flooding before emergency planners make decisions based upon it.

In line with these recommendations, incidents of flooding recorded by Rochford DC and records of sewer flooding supplied by Anglian Water from their DG5 register have been used to verify the ASTSW dataset. The surface water flow paths follow the general topography of the area, as shown in Figure A-2, and the predominant flow paths from the modelling correlate with the tributaries of the Rivers Roach and Crouch. Incidents of surface water and sewer flooding recorded in Rochford, Rayleigh and Hawkwell correlate well with the modelled dataset. In addition, incidents recorded in Little Wakering also correlate with the modelling. There are fewer incidents recorded to the north of the River Roach, which is to be expected given the lower concentration of urban development in this area. Further assessment of surface water across the district will be completed as part of the Surface Water Management Plan for the Rochford DC.

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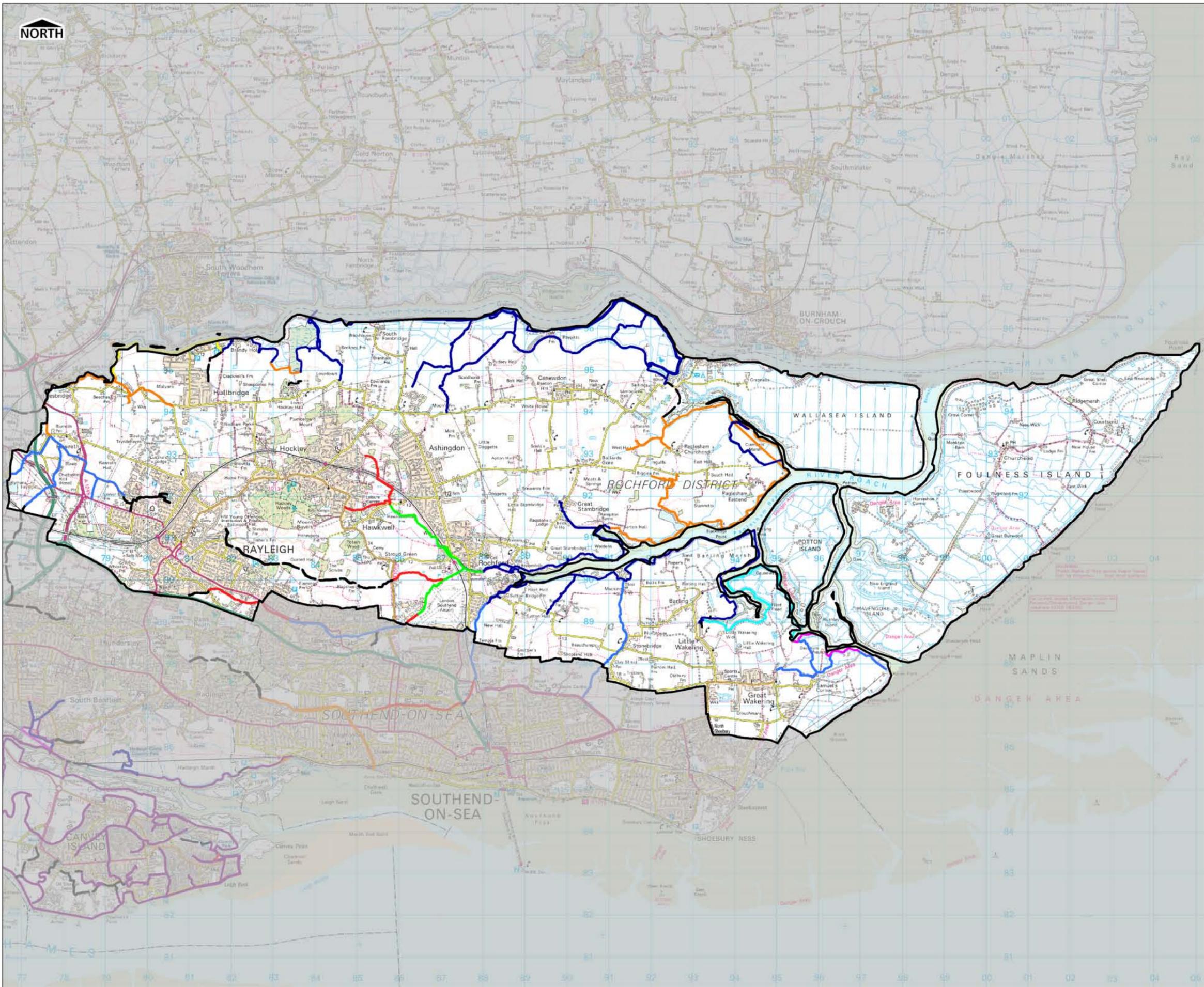
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AREAS SUSCEPTIBLE TO SURFACE WATER FLOODING



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FIGURE A-11



KEY

Rochford District Boundary

Defence Design Standard [NFCCD Dataset]

- 1000yr
- 200 - 1000yr
- 100 - 200yr
- 50 - 100yr
- 40 - 50yr
- 30 - 40yr
- 20 - 30yr
- 10 - 20yr
- 0 - 10yr
- Unknown

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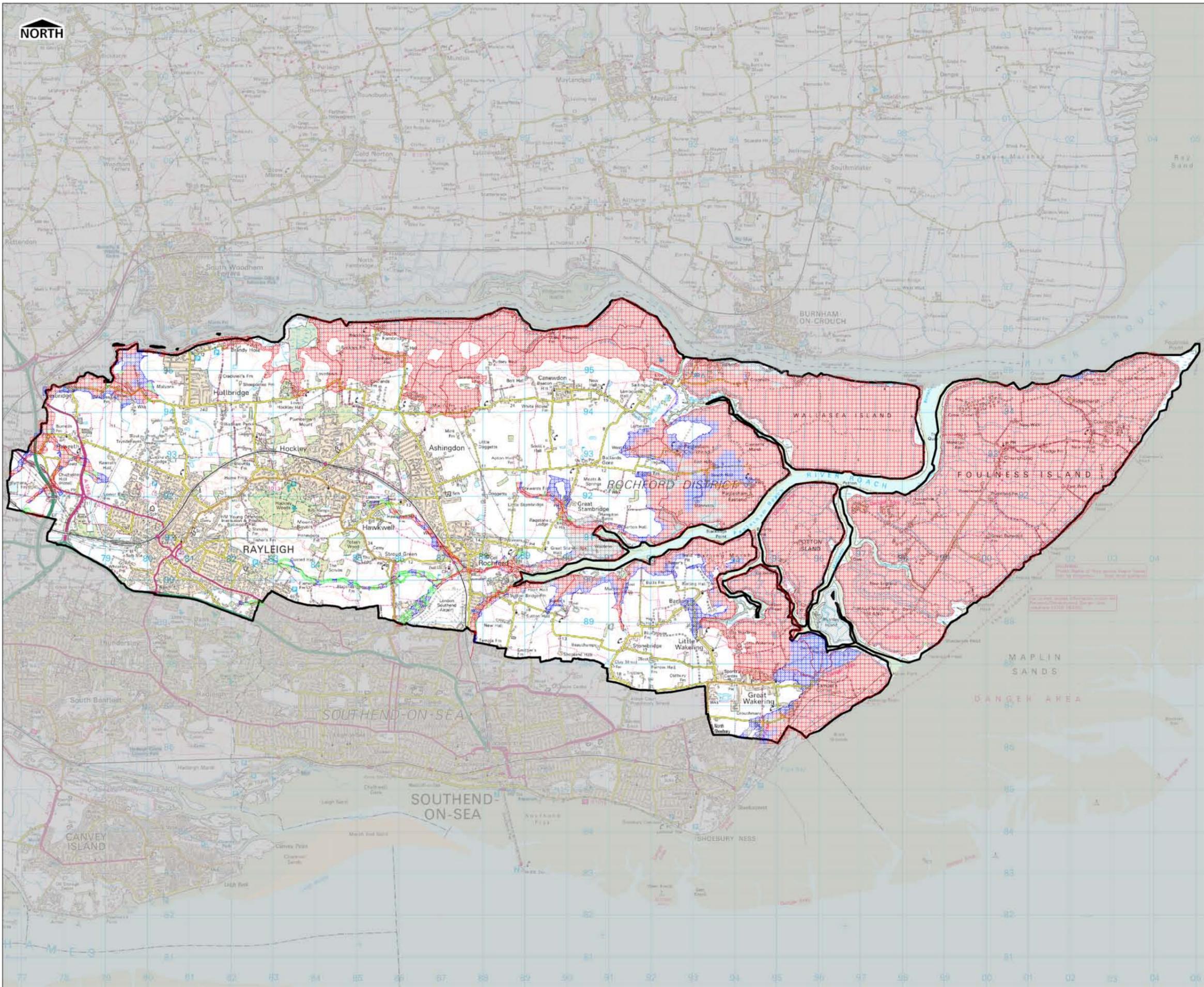
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FLOOD DEFENCE DESIGN STANDARD
 [NFCCD]



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FIGURE A-12



KEY

-  Rochford District Boundary
- National Flood Risk Assessment (NaFRA) Probability Bandings**
-  Low (1 in 200 chance or less, in any given year)
-  Moderate (1 in 75 - 1 in 200 chance, in any given year)
-  Significant (> 1 in 75 chance in any given year)
-  No Result

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NATIONAL FLOOD RISK ASSESSMENT
 [NaFRA]



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FIGURE A-13