

RESIDUAL RISK - COMPOSITE MAP OF ALL MODELLED BREACH LOCATIONS

KEY

- Flood Cell
- Breach Location
- Basildon BC Boundary

Maximum Flood Depth [m]

- 0.0m to 0.5m
- 0.5m to 1.0m
- 1.0m to 2.0m
- 2.0m to 3.0m
- 3.0m to 5.0m and greater

TECHNICAL NOTE

Hydraulic modelling has been undertaken using 3-D hydraulic modelling software MIKE21-HDFM (ver. 2009), to assess the effect of breaches at specified points and/or overtopping of defences. The model simulates 3 tidal cycles with the peak level occurring on the second peak and two slightly smaller peaks either side. Breaches in the defence walls are modelled to occur immediately before the peak tidal level to assess the potential impact of rapid inundation of floodwater.

The maximum flood depth is calculated by subtracting the LIDAR topographic data from the peak water level achieved at each element in the model throughout the simulation.

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It should be noted that the breach width and depth, though based on EA guidance, are arbitrary and do not necessarily represent the actual dimensions of a potential breach at a given location. A thorough description of methodology and assumptions is included within the SFRA Main Report.

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THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT

COMPOSITE MAXIMUM FLOOD DEPTH
0200YR (2010)
ALL BREACHES (BAS01&CAS08) & OVERTOPPING

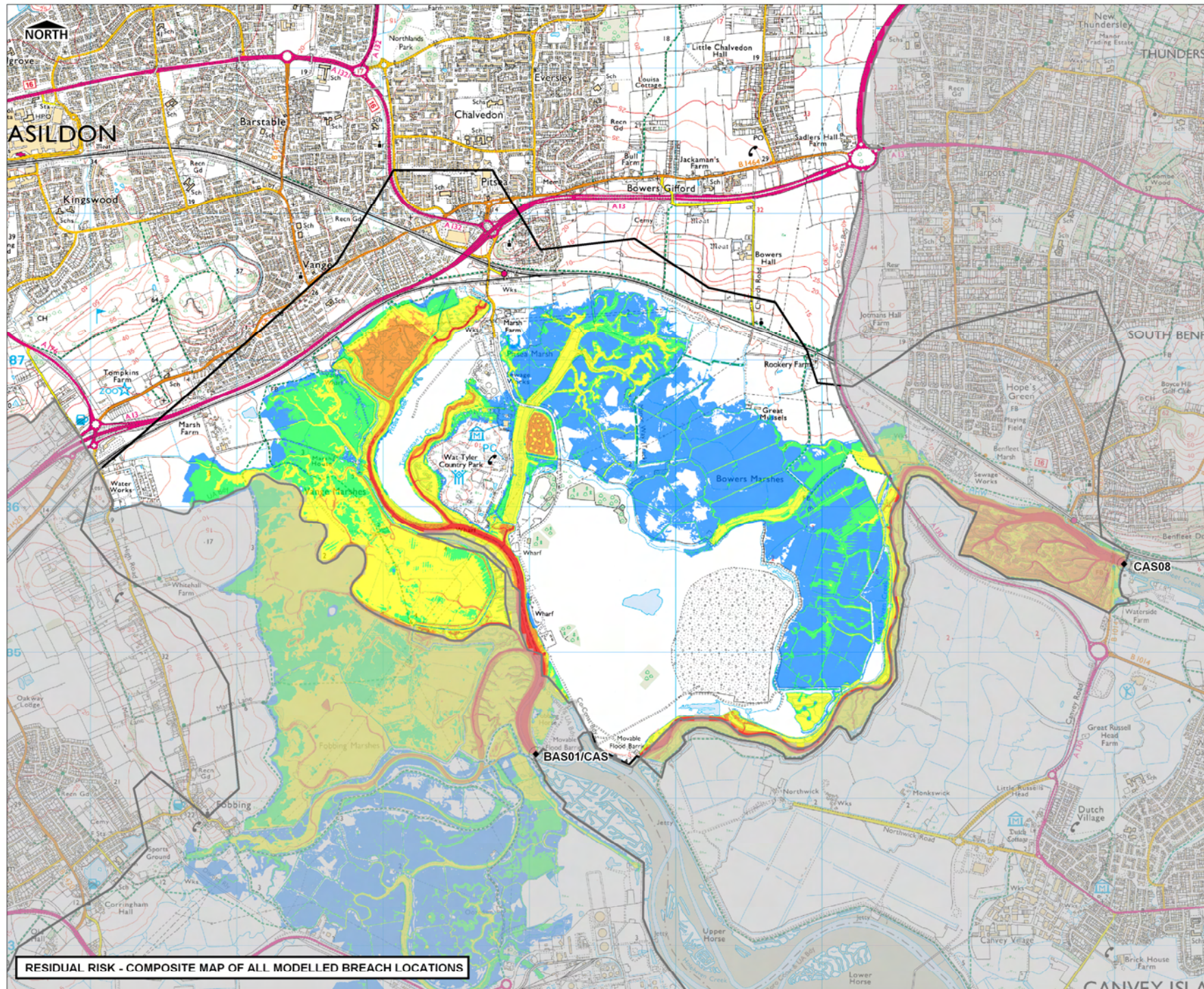
Basildon Council castlepoint Rochford District Council

Scott Wilson
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Tel. (020) 7798 5000

DRAWING NUMBER

FIGURE B-1

REV 02



RESIDUAL RISK - COMPOSITE MAP OF ALL MODELLED BREACH LOCATIONS

KEY

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- Basildon BC Boundary
- Breach Location

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THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT

COMPOSITE MAXIMUM FLOOD DEPTH
1000YR (2010)
ALL BREACHES (BAS01&CAS08) & OVERTOPPING

Basildon Council
castlepoint
Rochford District Council

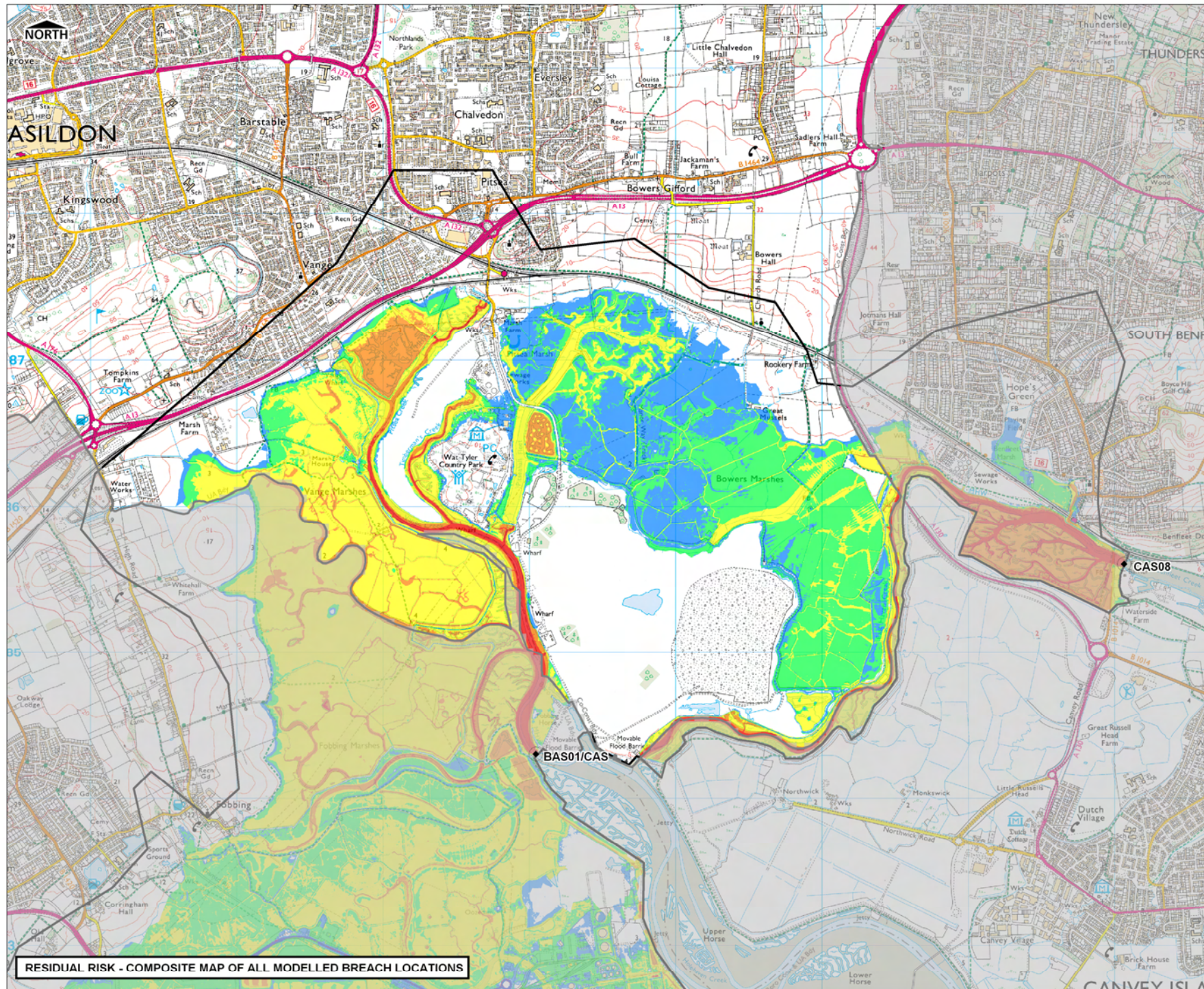
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FIGURE B-2

REV 02



RESIDUAL RISK - COMPOSITE MAP OF ALL MODELLED BREACH LOCATIONS

KEY

- Flood Cell
- Basildon BC Boundary
- Breach Location

Maximum Flood Depth [m]

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THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT

COMPOSITE MAXIMUM FLOOD DEPTH
0200YR (2110)
ALL BREACHES (BAS01&CAS08) & OVERTOPPING

Basildon Council
castlepoint
Rochford District Council

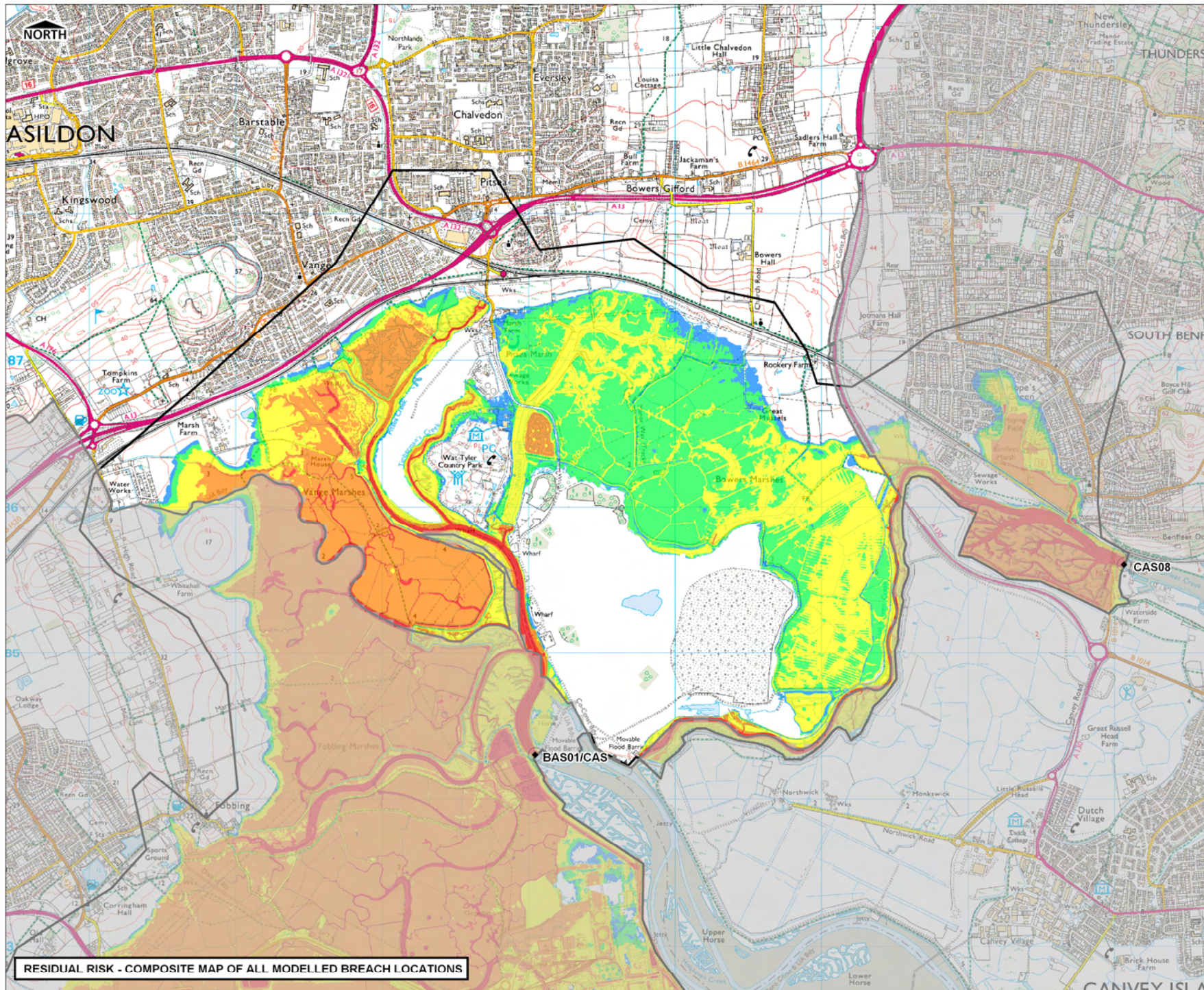
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SCOTT WILSON

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FIGURE B-3

REV 02



RESIDUAL RISK - COMPOSITE MAP OF ALL MODELLED BREACH LOCATIONS

KEY

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- Basildon BC Boundary
- Breach Location

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STRATEGIC FLOOD RISK ASSESSMENT

COMPOSITE MAXIMUM FLOOD DEPTH
1000YR (2110)
ALL BREACHES (BAS01&CAS08) & OVERTOPPING

Basildon Council
castlepoint
Rochford District Council

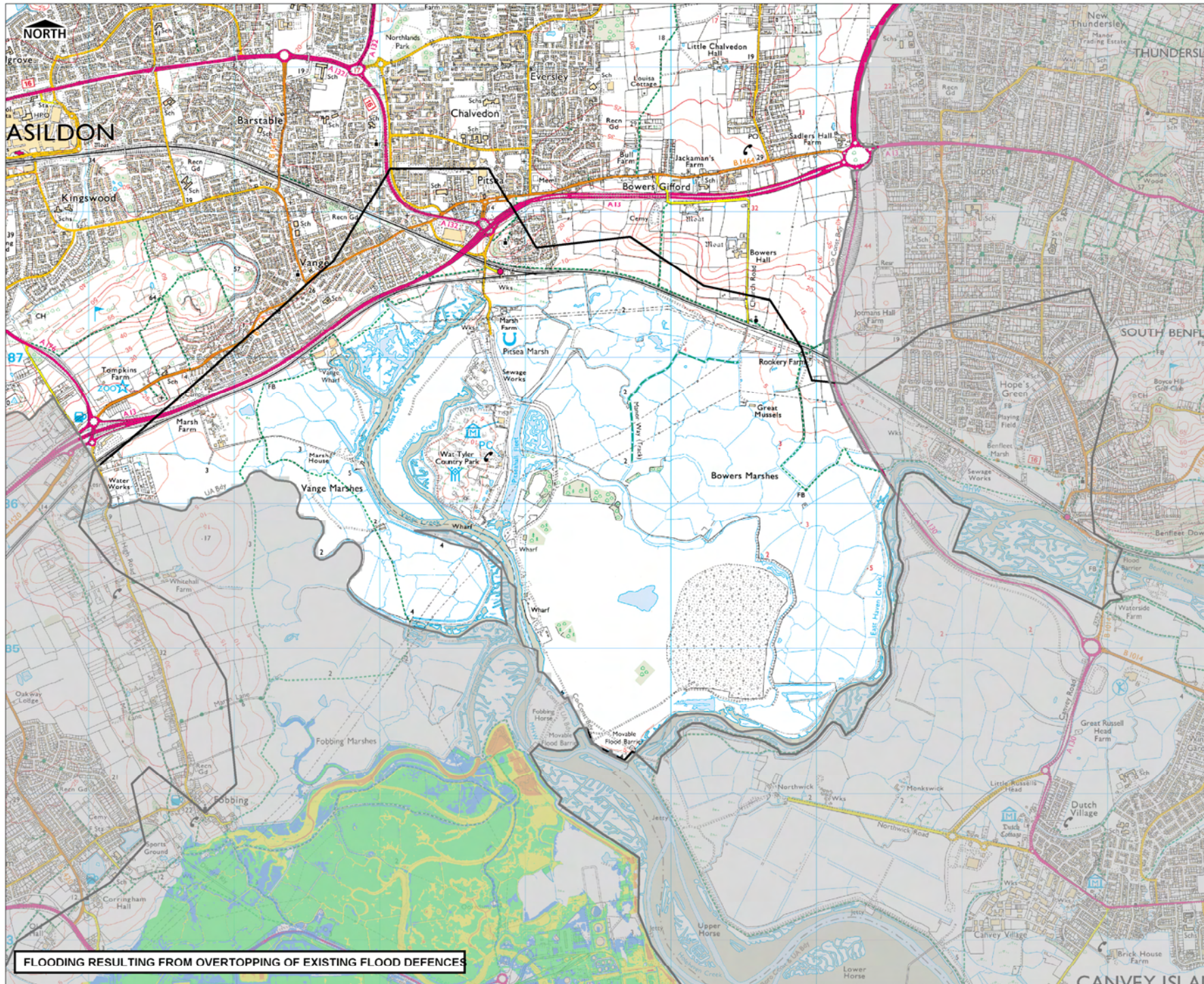
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SCOTT WILSON

DRAWING NUMBER

FIGURE B-4

REV 02



FLOODING RESULTING FROM OVERTOPPING OF EXISTING FLOOD DEFENCES

KEY

- Flood Cell
- Basildon BC Boundary

Maximum Flood Depth [m]

- 0.0m to 0.5m
- 0.5m to 1.0m
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The mapped scenario shows the actual risk of flooding; that resulting solely from overtopping of existing defences.

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**THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT**

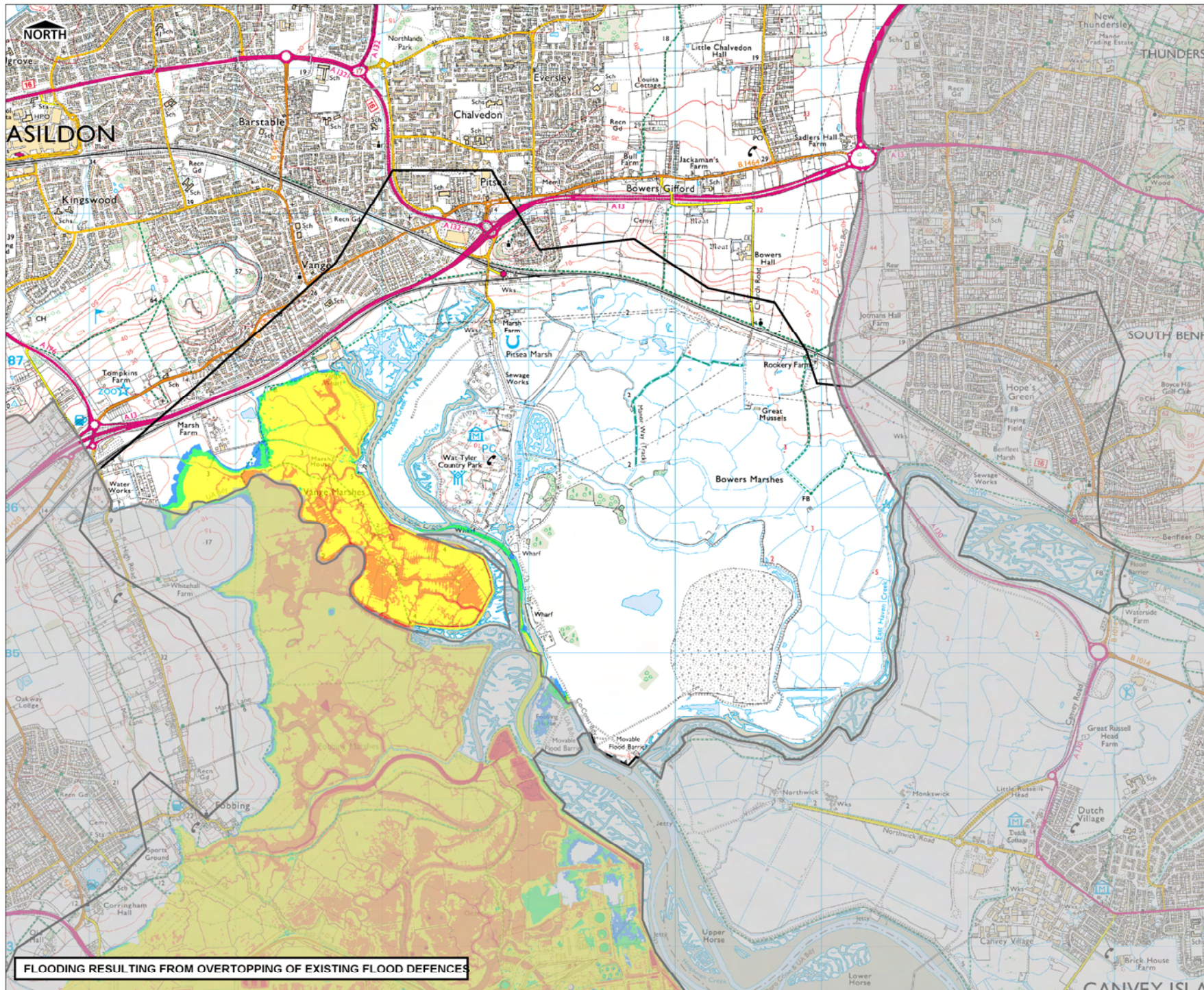
**COMPOSITE MAXIMUM FLOOD DEPTH
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OVERTOPPING**

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DRAWING NUMBER

FIGURE B-5

REV 02



FLOODING RESULTING FROM OVERTOPPING OF EXISTING FLOOD DEFENCES

KEY

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- Basildon BC Boundary

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